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Journal

OF THE TENNESSEE MEDICAL ASSOCIATION



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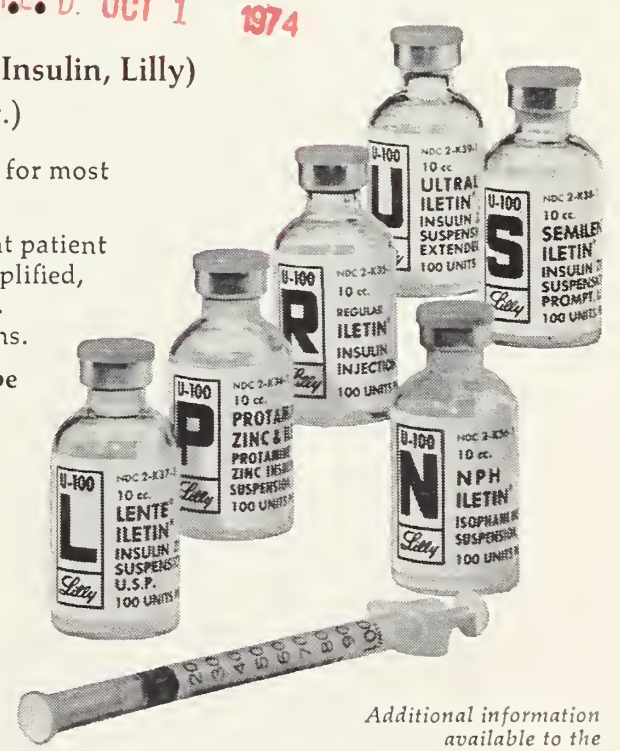
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Angiography and the Gastrointestinal Bleeder: A Review

STEPHEN L. GAMMILL, M.D.

Gastrointestinal bleeding continues to bedevil the internist, radiologist and surgeon despite the numerous and important technological advances of the past 20 years. Recent advances with regard to endoscopes have been phenomenal what with fiberoptics, the duodenoscope and the colonoscope. Image intensification has been most helpful to the fluoroscopist and has become reasonably ubiquitous in use over the past 10 years.

Perhaps the most exciting and potentially rewarding addition to our armamentarium in the fight against gastrointestinal bleeding, however, has been selective visceral angiography. Baum and Nusbaum began to experiment with this modality as a tool in locating gastrointestinal bleeders in 1963 and by 1965 had put it to practical use in diagnosing the site of bleeding in two patients. By 1967 they had studied 100 patients with gastrointestinal bleeding by selective visceral angiography and had discovered the site of bleeding in 72 of these. Not being satisfied with simply diagnosing the sites of bleeding, they decided to try and stop the bleeding with the use of vasopressors (pitressin and its derivatives), and reported quite promising results with this technique in 1968, 1969 and 1971.¹

Rosch, Dotter and colleagues got into the act and began treating gastrointestinal bleeders with epinephrine, packed platelets and autogenous blood clots, and in several papers from

1970-1972² reported good success without complications. The work of these intrepid investigators has marked the dawning of a new age in the handling of gastrointestinal bleeders. With the added dimension of safe non-operative treatment with intra-arterial vasopressors of the gastrointestinal bleeder to an accurate, safe and reliable diagnostic tool (angiography), we should indeed be able to look forward with optimism to diagnosing and stopping many of the ever troublesome gastrointestinal bleeders heretofore undiagnosed and unstopped by other means. The question arises as to how to apply these new tools toward the diagnosis and treatment of gastrointestinal bleeding now, in the near future, and in the distant future.

The first philosophical change concerning the application of angiography to gastrointestinal bleeding was made before its treatment with intra-arterial vasopressors came to the fore. This was first to work up patients with their first gastrointestinal bleed by endoscopy and barium studies. If we did not find the source of bleeding, and if the patient ceased bleeding and either re-bled in the hospital or returned to the hospital with a second bleeding episode, we omitted the barium studies and went directly to endoscopy and arteriography.

With the added dimension of intra-arterial therapy with vasopressors, however, it seems reasonable at this time to consider and discuss other philosophical changes. For these considerations and this discussion, I am arbitrarily dividing gastrointestinal bleeders into four categories: (1) esophageal varices, (2) peptic

From the Department of Radiology, University of Tennessee Medical School and the John Gaston Hospital. Memphis, Tenn.

ulcers, (3) upper gastrointestinal bleeding from diseases other than peptic ulcer, and (4) "lower" gastrointestinal bleeding (i.e., small bowel and colon).

ESOPHAGEAL VARICES

From 30% to 50% of esophageal varices are demonstrable with the esophagram.³ This percentage is probably much higher with the use of the esophagoscope, so that the diagnostic accuracy of this malady is probably in the range of 90% or higher with the usual diagnostic tools exclusive of angiography. Once varices are found by either of these two methods, though, can one always be sure that they are the source of bleeding, and if they are, what does one do about them? Emergency shunts are out! The various tubes have been disappointing at best.

Of the 28 patients with varices that Nusbaum and Baum have treated by perfusion of the superior mesenteric artery with pitressin, 27 were completely controlled¹; of the four patients similarly treated by Rosch and Dotter, three were completely and one partially controlled²; and we have similarly treated 19 patients, with complete control in 15.

It seems reasonable then to esophagoscope the alcoholic with cirrhosis and probable varices, perform visceral angiography to be sure no other site of bleeding is present, and place a catheter in the superior mesenteric artery for perfusion with pitressin.

PEPTIC ULCER DISEASE

Ninety per cent seems to be the figure to remember regarding peptic ulcers: 90% of fatal gastrointestinal hemorrhages originate from the upper G.I. tract, 90% are due to peptic ulcer and 90% of peptic ulcers are diagnosable by barium studies.³ So far the treatment of peptic ulcers with vasopressors has been disappointing. Rosch and Dotter failed to achieve complete control of bleeding in 11 of 13 cases they treated.² The bleeding here is usually due to erosion of an artery by an ulcer on the lesser curvature of the stomach or posterior wall of the duodenum.³ It may be feasible in the future to stop these bleeders with the injections of autonomous clots to thrombose these arteries²; this remains in the future, however. For the present, two approaches may be considered: (a) Endoscopy followed by the standard barium studies followed by surgical or other appropriate

therapy. (b) Angiography for diagnostic purposes in lieu of barium studies, for even if an ulcer is found with barium studies, one cannot always be sure this is the site of bleeding.

UPPER GASTROINTESTINAL BLEEDING FROM SOURCES OTHER THAN PEPTIC ULCERS

Of 22 patients treated in this category by Baum and Nusbaum¹ and Rosch and Dotter² 19 have been completely controlled (4 of 4 with Mallory Weiss, 9 of 11 with gastritis, 6 of 7 with stress ulcers), and we have controlled the bleeding in one uremic patient with bleeding gastritis. With a success rate such as this, after endoscopy, an attempt at angiographic diagnosis and therapy seems indicated as the initial step in handling these patients. Of course the success in treatment of the cases in this category is more dependent on one's capabilities in and experiences with selective and superselective angiography (left gastric and gastroduodenal arteries) than in the other categories, as the superselective placement of a catheter into one of these vessels is often required for successful therapy.

LOWER GASTROINTESTINAL BLEEDING

Of 100 patients with melena reported by Petzloff which were undiagnosed by conventional methods,⁴ the site of bleeding remained a mystery in 70 even after celiotomy. In 82 such patients reported by Stone⁵ all studies, including 6 celiotomies in some, were negative in 30 cases and the diagnosis was in doubt in 20 more. The odds of finding the site of bleeding in patients with unexplained melena or "lower" gastrointestinal bleeding then are poor at best; 60-70% go undiagnosed by all means, exclusive of angiography, including celiotomy. These figures are distressing and the approach to the patient with melena or "lower" gastrointestinal bleeding indeed needs reconsideration. Also, Atek⁷ reported 296 patients, 50 of whom were operated on, with a 25% mortality rate; the remainder were not operated on, and suffered a 43% mortality rate. Even though it is often written that it is easier to find the site of massive gastrointestinal bleeding than that of moderate bleeding with barium studies, 20% of these 296 patients were undiagnosed with barium studies.

It is fairly easy even for the angiographer of minimal experience to place a catheter into

the superior mesenteric artery. Of 60 active gastrointestinal bleeders from all sights in Nusbaum and Baum's series,⁶ the site of bleeding in 45 was found with a selective superior mesenteric arteriogram alone. Rosch and Dotter² completely controlled the bleeding in 7 of 8 patients with "lower" gastrointestinal bleeding and partially controlled the bleeding in the other patient. We have seen 2 patients completely controlled with vasopressors (Epinephrine) who were bleeding from colonic diverticula.

With the poor odds (30%) of obtaining a diagnosis in the patients in this category by barium studies and celiotomy, the relative ease with which one can place a catheter into the superior mesenteric artery, the good chance of finding the bleeding site, the excellent success rate in treating these patients with vasopressors, and the high mortality rate reported in past reports prior to angiographic diagnosis and therapy, it seems reasonable to start with endoscopy followed by selective superior mesenteric in these patients, with the idea of treating the bleeder if you can find it. If you cannot find and treat the bleeding site, then the inferior mesenteric artery would need to be catheterized, and it is also fairly easy to enter.

SUMMARY

I have reviewed the literature concerning

gastrointestinal bleeding and have discussed past diagnostic and therapeutic approaches to this problem and how they have been and are being modified with the increasing use of angiography as a diagnostic and therapeutic tool.

REFERENCES

1. Baum, S and Nusbaum, M: Control of Gastrointestinal Hemorrhage by Selective Mesenteric Arterial Infusion of Vasopressin. *Radiology*, 1971, 98, 498-505.
2. Rosch, J, Dotter, CT, Antonovic, R: Selective Vasoconstrictor Infusion in the Management of Arterio-Capillary Gastrointestinal Hemorrhage. *Am J Roentgenol Rad Therapy & Nuclear Med*, 1972, 116, 279-288.
3. Cooley, RN: The Diagnostic Accuracy of Upper Gastrointestinal Radiologic Studies. *Am J Med Sci*, 1961, 242, 628-648.
4. Petzloff, JA, Haagedon, AB and Bartholomew, LG: Abdominal Exploration of Gastrointestinal Bleeding of Obscure Origin. *JAMA*, 1961, 177, 104-114.
5. Stone, HB: Large Melena of Obscure Origin. *Ann Surg*, 1944, 120, 584-594.
6. Nusbaum, M, Baum, S, Blakemore, WS: Clinical Experience with Diagnosis and Management of Gastrointestinal Hemorrhage by selective Mesenteric Catheterization. *Ann Surg*, 1969, 170, 506-514.
7. Atik, M and Simeone, FA: Massive Gastrointestinal Bleeding: Study of 296 Patients at City Hospital of Cleveland. *AMA Arch Surg*, 1954, 69, 355-65.

* * *

Medical Profession Self Discipline Urged

CHICAGO—The medical profession must discipline itself if doctors are to avoid passage of harsh laws to curb unethical conduct, says an editorial in the current (Oct. 29) issue of the *Journal of the American Medical Association*.

"Medical societies appear to have been reluctant to tackle tough problems relating to questionable actions by their members. It is amazing how many excuses can be found for not conducting an investigation or for not taking action," says the editorial.

"The profession must not rely on excuses. If discipline is necessary, it should be administered.

"In the legal profession, there is a saying that hard cases make bad law. This hip-pocket maxim can be applied to medicine. When cases of alleged unethical conduct are not handled

within the profession and are 'exposed' to the public as not handled, the ends of justice are overshadowed by the dictates of expediency and pragmatism. Hard law results. Reaction, over-reaction, backlash—bad law is inevitable.

"To the extent that medical society discipline is observed (and demonstrated to the public as being viable), restrictive judicial and statutory regulations will be avoided. With each example, feeling builds up, and it may manifest itself unexpectedly as the result of some trivial episode.

"Medical societies alone and medical societies in concert with boards of medical examiners have two responsibilities today in medical discipline: (1) they must impose discipline when it is reasonably called for, and (2) they must publicize their actions so the faith of the public may be restored."

The editorial is by Edwin J. Holman, LLB, of the Office of the General Counsel of the American Medical Association. Mr. Holman is secretary to the AMA's Judicial Council.

*The Tennessee Radiological Society — A Historical Review**

WEBSTER RIGGS, JR., M.D.

THE BEGINNINGS OF RADIOLOGY IN TENNESSEE

Activity in the use of x-ray began in Tennessee rather soon after Roentgen's discovery. Tennessee newspapers carried the story of the mysterious new ray's discovery during January of 1896.

Dr. John Daniel, a physicist at Vanderbilt, promptly began experiments and soon became the first to describe the depilatory effect of x-ray. He noted how the hair on the side of the head next to the x-ray tube fell out on a man on whom he had taken a skull radiograph, using a one hour exposure time. This work was published in *Science*, April, 1896.

Dr. Max Goltman, a Memphis surgeon, was Tennessee's foremost early proponent of medical diagnosis in using x-ray, publishing a paper entitled "The Medical and Surgical Application of the Roentgen Ray" in the *Memphis Medical Monthly* in February, 1897, and giving demonstrations of radiographic procedures throughout the state.

A colleague of Goltman and noted pathologist, Dr. William Kraus, soon adapted Goltman's x-ray work to the therapy of disease, both benign and malignant. He was later to lose his life from skin malignancy related to his early experiments and became known as one of x-ray's early martyrs.

Throughout the early decades of this century radiology was practiced as a sideline by many physicians, photographers, and physicists. Perhaps the first man to limit his work to radiology, and hence to be called a radiologist, was Dr. Walter Lawrence, who began his practice of electro-therapy and radiology in Memphis in 1905 and became the first chairman of the UT Department of Radiology, a post he held for 25 years.

In Nashville, Dr. G. P. Edwards, and in East Tennessee Drs. G. W. Drake and John Hankins led the way during the early decades in their areas.

*From the Department of Radiology, Le Bonheur Children's Hospital, Memphis, Tenn. 38103

THE FOUNDING OF THE SOCIETY

In 1934, Drs. Frank Bogart and Horace Gray discussed the formation of a state radiological society. Local radiology groups had already been formed in the state's larger cities. Dr. Bogart was then quite prominent in the TMA and therefore encouraged the organization of radiology on a state level.

The first and organizing meeting was held at the Hotel Patten in Chattanooga, April 11, 1934. The seven founding members decided to name the organization the Tennessee Radiological Society, with its membership limited to those practicing radiology as a specialty. The annual meetings were held in conjunction with the Tennessee State Medical Association.

Members present at first meeting:

R. P. Ball	C. M. Hamilton
F. B. Bogart	H. G. Reaves
J. M. Frere	H. S. Shoulders
H. D. Gray	

The members were assessed \$1.00 each for incidental expenses. The following officers were elected:

President—C. M. Hamilton
Vice-president—C. H. Heacock
Secretary-Treasurer—F. B. Bogart

Dr. Bogart acted as secretary of the TRS during its first ten years and was elected president in 1947.

A special called meeting on December 6, 1934, took place in Memphis at the Peabody Hotel where the Radiological Society of North America was being held. Dr. B. R. Kirklin was the guest speaker and outlined the purpose of the newly formed American Board of Radiology.

The Constitution and By-Laws of the Tennessee Radiological Society were presented at this meeting. It was decided that candidates for membership should have practiced for at least three years. All ballots for membership should be secret, and a $\frac{2}{3}$ majority should be required to elect members.

THE EARLY YEARS THROUGH WW II

By 1940 the group had grown to 19 mem-

bers. During the first decade of the organization, through WWII, the meetings were predominantly of social and scientific nature, often involving radiation therapy. There was little discussion of socio-economic problems. Invited guest speakers were usually from out of state. Some of the speakers included Drs. B. R. Kirklin, Fred Coe, Vincent Archer, etc., and many of these were elected honorary members. About 10 to 20 members usually attended; a high percentage of state members. Meetings were not held in 1943 and 1945 due to the war. An unofficial meeting (organized by Dr. Horace Gray) was held at a Fisherman's Warf restaurant in San Francisco in 1945.

In 1948 the first councilor to the American College of Radiology was elected—Dr. Frank Bogart.

THE FIFTIES—THE INTEREST IN SOCIOECONOMIC AFFAIRS

By 1950 the roll of members numbered 39. At the 1950 meeting the Society voted to go on record as deploring the uncontrolled use of x-ray fluoroscopic fitting of shoes. This was released to the press in Memphis, and through subsequent efforts of the Society, led by Drs. Walter Robinson and Carl Nurnberger, legislation was passed in Tennessee to abolish this practice.

During the 1950's socioeconomic issues became more prominent at the meetings. Discussions of hospitalization insurance and methods of financial remuneration for radiologists became of vital interest.

At the 1952 meeting Dr. Walter Scribner was elected councilor to the American College of Radiology, a position he held until 1956, at which time Dr. Herbert Francis was elected.

In 1956 a statement from the ethics committee of the College was presented urging state and local societies to try to remove radiology from hospital insurance programs and to place it under professional insurance programs where it should have been all along.

In 1958 a revision of the Constitution and By-Laws was accepted. The work had been accomplished by Drs. Scribner, King, Whiteleather, Francis and Henshall. It established three categories of membership: active, honorary, and associate. It also formed an executive committee consisting of the President, President-elect, Vice-president, Secretary-

Treasurer, and two members at large. The new Constitution now stated that the ethical principles of the Society should conform to those of the AMA and ACR.

THE SIXTIES—SEPARATE BILLING STARTED

In 1960 the membership role had grown to 68.

In the early 60's more of the annual meetings were concerned with reports from the councilor to the ACR. Discussions of problems with insurance carriers also attracted considerable attention. In 1961 Dr. Hankins reported that the College recommended that all local radiological societies become chapters of the ACR and that each elect a delegate (councilor) and alternate to serve a term of three years. At the 1962 meeting Dr. Scribner explained the method and advantages of this formation. After a lengthy discussion Dr. George Henshall moved that the Society become the Tennessee Chapter of the ACR. This was passed.

During 1962 members were saddened by the death of three of its past presidents: Drs. Heacock, Francis, and Bogart.

At the 1964 meeting, Dr. Scribner reported that at the ACR councilor's meeting a program of separation of radiologists' professional fee from the non-professional costs was being encouraged. This was led by Dr. David Carroll who was then Chairman of the Board of Chancellors of the ACR. Dr. Sam Hay read a report of the TMA Council suggesting similar changes.

In 1965 the Constitution and By-Laws for a chapter of the ACR superseded and replaced the former ones of the Society.

At the 1965 meeting Drs. Hay, Whiteleather and King proposed that an interim scientific and business meeting be held in Nashville each fall. This was adopted.

Dr. Hay reported that the TMA now regarded existing contracts between radiologists and hospitals illegal and unethical.

During 1965 there were two called meetings to discuss the problems of separate billing for radiologists. At the called meeting in July, Dr. Cash King moved that the Society comply with the wishes of the TMA—that radiologists divorce themselves from their financial hospital ties and bill their patients independently. This was passed.

During 1965 separate billing began in actual practice. The East Tennessee Radiological So-

ciety, formed by Drs. Kent Carter and J. J. Range, led the way. The radiologists in East Tennessee, after expressing some initial reluctance to separate billing, soon became its major advocates, with hospitals in Knoxville, Maryville, and Chattanooga being the first to undertake the change.

Activity during the late 60's predominantly concerned implementing the actual change to separate billing by most of the members. There were problems with insurance carriers, and communications with the TMA were needed to deal with these. Dr. David Taylor made notable contributions towards solving problems in these areas.

In October, 1969, the Society officially became incorporated.

THE SEVENTIES

By 1970 the membership roll had grown to 117. The members that year approved securing insurance against public liability and personal injury.

In 1971 President Hollis Halford led the discussions on impending state legislation concerning required radiation dose measurements and technologist licensure.

During the early 70's the ACR began to assert an increasingly greater influence in the affairs of its Tennessee chapter. A large portion of the meetings was concerned with the report of the ACR councilors. Since 1970 these councilors throughout the country have functioned as the democratic policymakers for the ACR.

Presently much of the business of the annual meeting is planned by an active executive committee that meets several times each year to expedite the business.

Much of the furor over independent billing has subsided with a distinct and increasing majority of radiologists throughout the state now successfully billing the patient directly. Confronted with the rapidly changing socioeconomic scene in today's medical world (with HMO's and peer review) the TRS from its past record can derive confidence that it is capable of meeting any problems presented.

MEETING LOCATIONS AND SCIENTIFIC PROGRAMS

1934, April—Chattanooga—Round Table Discussion
1934, December—Memphis—Dr. B. R. Kirklin, "Out-

line and Plans of the American Board of Radiology"

- 1935—Nashville—Dr. Kennon Dunham, Discussion on Chest Pathology
- 1936—Memphis—Dr. R. P. Ball, Roentgen Pelvic cephalography; Dr. W. W. Robinson, Gall Bladder Pathology and Technique
- 1937—Knoxville—Dr. Vincent Archer, Roentgen Ray Treatment of Malignancies of the Head and Neck
- 1938—Nashville—Dr. Arthur W. Erskin, Carcinoma of the Breast
- 1939—Jackson—Dr. Leon J. Menville, Radiation Therapy and Carcinoma of the Cervix and Carcinoma of the Body of the Uterus
- 1940—Chattanooga—Dr. Charles L. Martin, Radiation Treatment of Metastatic Carcinoma of the Cervical Glands
- 1941—Nashville—The program given by General Electric, Motion picture "Exploring With X-rays"
- 1942—Memphis—Dr. Robert J. Reaves, X-ray Therapy and Superficial Infections
- 1943—No meeting
- 1944—Nashville—Major Archie Fine, Experience with PhotoRoentgen Methods of Chest Survey; Captain Joseph Ivie, Case Reports in an Army General Hospital
- 1945—Unofficial session by several members in the Armed Forces who met in San Francisco in Fisherman's Warf.
- 1946—Knoxville—Dr. Robert A. Arens, Pneumoperitoneum
- 1947—Memphis—Dr. U. V. Portmann, Roentgen Therapy for some Superficial Lesions
- 1948—Nashville—Dr. B. R. Kirklin, Cholecystography and Some Newer Developments
- 1949—Chattanooga—Dr. Lawrence Reynolds, Advances in Medical Application of Atomic Energy
- 1950—Memphis—Dr. William B. Seaman, Roentgenological Diagnosis of Gastric Lesions
- 1951—Nashville—Dr. Fred Coe, GI Hemorrhage from Posterior Wall Duodenal Ulcers and also The Roentgen Diagnosis of Polyps of the Colon
- 1952—Knoxville—Dr. Robert C. Pendergrass, Tumors of the Colon
- 1953—Memphis—Dr. Cesare Gianturco, High Voltage Radiography in the Diagnosis of Colonic Polypi; Dr. Milton Adams, Late Radiation Sequellae
- 1954—Nashville—Dr. C. A. Good, Fungus Diseases of the Chest
- 1955—Chattanooga—Dr. Manuel Garcia, Carcinoma of the Cervix
- 1956—Memphis—Dr. Ted Leigh, Mediastinal Masses
- 1957—Nashville—Dr. George Cooper, Collagen Diseases

1958—Gatlinburg—Mr. William Stronach, Present Social Trends Affecting the Practice of Radiology

1959—Memphis—Dr. Robert Moreton, Lumbar Spine and Industry

1960—Nashville—Dr. Charles L. Martin. Treatment of Cancer of the Head and Neck with Radiation

1961—Chattanooga—Dr. Robert Pendergrass, Tumors of the Colon

1962—Memphis—Dr. John E. Reeves, Super Voltage, X-ray, and the Cobalt Bomb

1963—Knoxville—Dr. Eugene T. Klatte. Clinical Application of Cine Radiography; Dr. T. J. Wachowski. Topics of Current Interest in the American College of Radiology

1964—Memphis—Dr. John Dennis, Lymphangiography

1965—Chattanooga—Dr. John Beveridge, The Tennessee Medical Association organization and Function; Dr. Colin Holman, Special Procedures and Examination of the Posterior Cranial Fossa

1966—Gatlinburg—Dr. Eugene Klatte, Varied scientific program

1967—Memphis—Varied program given by Drs. Edward Buonocore, V. A. Vix. E. L. Caldwell, W. E. Long, J. W. Grise, and W. W. Riggs

1968—Chattanooga—Dr. Don C. Weir, Cervical Spine Injuries, Roentgen Evaluation

1969—No scientific meeting

1970—Memphis—Dr. Frank Tomas, Preoperative Radiotherapy and Total Body Radiation; Dr. Henry Burko and Dr. John Foster, Diagnosis and Management of Renovascular Hypertension

1971—Chattanooga—Dr. Richard Marshak, Inflammatory Diseases of the Colon

1972—Gatlinburg—Dr. I. R. Collmann, Dr. James Lewis, Dr. Jack Williams, and Dr. Edward Buonocore, Clinical Approach to Obstructive Jaundice

1973—Memphis—Dr. Ben Greenberg, Radiology of the Spinal Cord Injury Patient; Dr. Joseph

Lougheed, The Role of Surgery and Radiology in the Management of Thoraco-Lumbar Injury

PRESIDENTS OF THE
TENNESSEE RADIOLOGICAL SOCIETY

1934 Dr. Charles Hamilton-First Meeting

1935 Dr. Charles Heacock

1936 Dr. John L. Hankins

1937 Dr. H. S. Shoulders

1938 Dr. S. S. Marshbanks

1939 Dr. Steve Coley

1940 Dr. Eugene Abercrombie

1941 Dr. Christopher C. McClure

1942 Dr. Horace D. Gray

1943 None

1944 Dr. Paul Dietrich

1945 None

1946 Dr. Leon M. Lanier

1947 Dr. J. Cash King

1948 Dr. Franklin B. Bogart

1949 Dr. Herbert Francis

1950 Dr. W. W. Robinson

1951 Dr. Walter D. Hankins

1952 Dr. J. E. Whiteleather

1953 Dr. J. McKinney Ivie

1954 Dr. J. Marsh Frere

1955 Dr. John M. Wilson

1956 Dr. Ben R. Mayes

1957 Dr. W. E. Scribner

1958 Dr. David S. Carroll

1959 Dr. Granville Hudson

1960 Dr. George Henshall

1961 Dr. Ed H. Mabry

1962 Dr. M. D. Ingram

1963 Dr. James J. Range

1964 Dr. Sam Hay

1965 Dr. William R. Mitchum

1966 Dr. Boyer M. Brady

1967 Dr. J. Marsh Frere, Jr.

1968 Dr. John Beveridge

1969 Dr. Kent Carter

1970 Dr. Hollis Halford

1971 Dr. Marion Spurgeon

1972 Dr. Claude Williams

1973 Dr. Lawrence Nickell

* * *

Medical Briefs

Gonorrhea, already an epidemic in the United States, may prove even more serious when 1973 statistics are compiled, says Dr. J. D. Millar of the Center for Disease Control. Last year,

there were at least 2.5 million cases and indications are that there could be almost 2.8 million in 1973, he said. There were fewer than 250,000 reported cases in 1957, then a steady climb upward began.

Clinical Evaluation of a New Dosage Form of Ampicillin and Probenecid in the Treatment of Uncomplicated Gonorrhea

FRANK L. ROBERTS, M.D.
Venereal Disease Division, Memphis and Shelby County Health Department,
Memphis, Tennessee

INTRODUCTION

The ubiquitous and humble gonococcus has never been, until very recent times, treated with any respect at all. As Pelouze stated 40 odd years ago, the disease was a vertiable nobody's child and was a medical outcast. This organism has never devastated cities, it has never caused the death of millions, it has never created panic in the breasts of the righteous. As a matter of fact, it does not arouse panic in the minds of the non-righteous and is even referred to contemptuously as "Cupid's catarrh" and as being no worse than a bad cold. However, this simple organism has infected and made miserable millions upon millions of people, it has blinded many thousands of persons and crippled other thousands. It is not to be taken lightly. It is no respecter of persons—kings, popes, bishops, earls, q u e e n s , brick-layers, hod-carriers, preachers and physicians are numbered among its victims. It is almost as adaptable as the cockroach. Before the sulfa drugs, there was no effective treatment at all. It took just a few years for the gonococcus to conquer the sulfa drugs, and in the last 25 years has forced penicillin to augment its forces by at least 800 percent. It is a truly formidable opponent to the acologists.*

The current recommended treatment for uncomplicated gonorrhea for both men and women is 4.8 million units of aqueous procaine penicillin G given intramuscularly with 1 gram of oral probenecid, or ampicillin 3.5 grams and probenecid 1 gram given simultaneously by the oral route.¹ A liquid oral suspension containing 3.5 grams of ampicillin trihydrate and 1 gram of probenecid** is now available. In this study, the new preparation was evaluated to determine the cure rate in the treatment of uncomplicated gonorrhea and also the incidence of side effects.

*One versed in therapy and is from the Greek *akos* + *logos* (therapy + word)

**Polycillin ©PRB, Bristol Laboratories, Syracuse, New York

MATERIALS AND METHODS

Patient Selection: All patients who were suspected of having gonorrhea were considered for entry into this study.

In males, the diagnosis was confirmed by a Gram stained smear and urethral culture. With the use of a sterile inoculating loop, urethral specimens were plated onto Thayer-Martin medium² A positive smear, or a positive smear and culture was considered to be confirmation of the diagnosis.

In females, the diagnosis was confirmed by cultures of the cervix and rectum, also with the use of Thayer-Martin medium. A positive culture of either or both sites was considered to be confirmation of the diagnosis.³ Patients were excluded from the study for any of the following reasons: history of allergy to any penicillin, diagnosis of non-gonococcal urethritis, or a failure to return to the clinic for the follow-up visit within 8 days after treatment.

Treatment: For each patient, one package of the liquid oral suspension, containing 3.5 grams of ampicillin trihydrate and 1 gram of probenecid, was reconstituted with 30 ml. of water and the patient consumed the entire contents.

Follow-Up: Patients returned to the clinic between the third and eighth post-therapy day. At this visit, the cultures were repeated. Each patient was questioned regarding additional sexual activity and possible reinfection following the initial treatment. Also at this visit, any adverse reactions to drug administration were recorded.

RESULTS

In both the male and female groups, there was a wide variation in weight. For males, the weight ranged from 95-375 lbs. with an average of 162 lbs.; for females the weight ranged from 90-273 lbs. with an average weight of 134 lbs. (Table 1).

One hundred eighty-nine (189) males and

TABLE 1
AGE AND WEIGHT

	Males	Females
Average age in years	25	20
Age range in years	13-61	14-31
Average weight in lbs.	162	134
Weight range in lbs.	95-375	90-273

TABLE 2
PATIENT POPULATION

	Males	Females
Total patients treated	189	157
Lost to follow up	78	49
Re-infection	2	0
Overgrowth with fecal flora on post-therapy culture	0	4
total not evaluated	80	53
Total patients evaluated	109	104

one hundred fifty-seven (157) females were entered into the study (Table 2). Seventy-eight males and 49 females did not return to the clinic for the follow-up visit, and could not be located. Two male patients returned for the follow-up visit 13 days after treatment, and both had been re-infected. For 4 female patients, the rectal cultures on the post-therapy visit were overgrown with fecal flora and could not be read.

Of the total of 109 males who were evaluated, 21 had a positive Gram stained smear and negative culture and in the remaining 88 cases, both smear and culture were positive.

Of the 104 females who were evaluated, 17 had positive cultures of both cervix and rectum, and the remaining 87 had positive cultures of the cervix only.

There were 6 failures in the male group for a cure rate of 94.5%. In the female group, there were 4 failures for a cure rate of 96.1%. (Table 3). Of the 4 failures in the female group, one was a known prostitute who may have been re-infected.

TABLE 3
RESULTS OF THERAPY

	Males	Females
Total patients evaluated	109	104
Total cures	103	100
Total failures	6	4
Cure rate (%)	94.5	96.1

There was a total of 2 side effects reported in the 213 patients for a rate of 1% (Table 4). The two side effects reported were both mild diarrhea during the night following treatment. Both cases were self-limiting and minor.

TABLE 4
SIDE EFFECTS

	Males	Females
Total patients evaluated	109	104
Side effects reported	0	2
Side effect rate (%)	0	2

DISCUSSION

Oral therapy is preferable to parenteral therapy because severe allergic reactions are less frequent. The nursing personnel who administered the formulation were impressed with the convenience and patient-acceptance of the medication.

An interesting observation is that in no case in females was a rectal culture positive and cervical culture negative. This result differs from the generally accepted viewpoint that additional cases of gonorrhea will be detected by doing rectal cultures.

CONCLUSION

Polycillin PRB has been shown to be an effective treatment of acute gonorrhea with a cure rate of approximately 95% in both males and females. This compares favorably with the cure rate using standard intramuscular penicillin treatment.⁴ The medication was well-tolerated, and convenient to administer. Side effects were confined to 2 cases of mild diarrhea in the entire series.

REFERENCES

1. Gonorrhea, Recommended Treatment Schedules, Venereal Disease Branch, Center for Disease Control, Atlanta, Ga. March 1972.
2. Thayer, JD, and Martin, JE, Jr: Improved Medium Selective for Cultivation of *N.gonorrhoeae* and *N.meningitidis*. Public Health Reports, 81:559-562, 1966.
3. Criteria and Techniques for the Diagnosis of Gonorrhea, Venereal Disease Branch, Center for Disease Control, Atlanta, Ga. March 1972.
4. Duncan, WC, Holder, WR, Roberts, DP, and Knox, JM: Treatment of Gonorrhea with Spectinomycin Hydrochloride: Comparison with Standard Penicillin Schedules. Antimicrobial Agents and Chemotherapy, 1:210-214 March 1972.

Reach-To-Recovery

MARY BROOKSHIRE (MRS. PAUL F., JR.)*

"Good Morning, Mrs. Smith, I'm Mary Brookshire, a volunteer with the Reach-To-Recovery Program. Your doctor suggested that I come to see you, because I've had surgery similar to yours, and he thought we could talk. I've also brought you some gifts."

The above statement, uttered by every Reach-To-Recovery volunteer, attired in a form fitting outfit, as a greeting to a new mastectomy patient, has already answered a number of questions for the patient, and has also dispelled many thoughts without conversation.

There, at her bedside, is an individual who had undergone a similar experience, and could understand her thoughts, emotions, and problems. Because of the volunteers attire, she will know that she can look as she did before.

Reach-To-Recovery is a service and rehabilitation program of the American Cancer Society, designed for the woman who has had breast surgery, to meet her physical, cosmetic, and psychological needs. Actually, the patient's physical needs are met by her surgeon, but, these are supplemented, at his request, with several safe muscle strengthening exercises, to aid in arm function and co-ordination.

Cosmetically, the volunteer will give the patient a temporary prosthesis (in her own size), that she can start wearing almost immediately, in the hospital, and, at home, during her entire recuperative period. This really does boost the patient's morale. She need not cringe when family, friends, neighbors, and curious busy-bodies come to visit. In some areas a lounge bra is also given to the patient. Clothes and wardrobe adjustments are discussed, if necessary.

The volunteer also tells the patient that she can show her samples of permanent prostheses available in her locale, and even go shopping with her, when her doctor tells her that she is ready to be fitted with her first permanent prosthesis.

Something that most patients aren't aware of is that some insurance policies have a clause stating that they will cover the cost of a per-

manent prosthesis and surgical bras during the first year after surgery. Thereafter, they are tax-deductible.

Psychologically, we hope to meet the patient's needs. Each one of the volunteers knows what her experiences were following her own surgery, but we are all individuals with different backgrounds and varying sources of support so that even though there is a general format for a visit, it has to be geared to meet each individual patient's needs. A husband volunteer program is also available for husbands who find understanding difficult.

It is very important that a woman be made to feel that she is the same woman after this surgery, as she was before. This program is a realistic attempt to bring knowledge and understanding to mastectomy patients by enabling the surgeon to provide these patients with specialized assistance without cost or without interfering with the doctor-patient relationship. The physician is not only important but absolutely necessary in this program, for it is he who recommends a woman as a volunteer, and also must sign a request before a visit to a patient can be made.

A woman who wishes to become a Reach-To-Recovery volunteer must have had a mastectomy, have made a successful adjustment to her surgery, be emotionally stable and well groomed (this does not mean expensively), be able to communicate compassion and understanding and be willing to give of her time. This program is a service to aid in the rehabilitation of others, and is not therapy for the volunteer. The American Cancer Society is very careful with the screening, appearance, and the training of the volunteers.

After the request for a visit has been signed by the surgeon, the volunteer will visit the patient about five days post-operatively, armed with a kit which includes very informative literature, exercise equipment (a ball and a short length of rope), temporary prosthesis, and a positive but low keyed approach. These visits are made about five days after surgery, because by then the patient is usually over the effects of the anaesthetic and is really becoming consciously aware of what happened to her.

* Division Volunteer Co-ordinator, Reach-To-Recovery Program. American Cancer Society, Tennessee Division.

A Kingsport psychiatrist said, "Most women who have mastectomies need help with their psychological rehabilitation. This seems to have been a neglected area. It appears that with this great psychological conflict, most women suffer this out in silent desperation. There is a tremendous need in this area."

Terese Lasser, who had a mastectomy twenty years ago, recognized this and had the courage to accept the challenge to meet this need. She originated the Reach-To-Recovery Program with funds supplied by her late husband, J. K. Lasser. Then, in 1969, the American Cancer Society took over sponsorship of the program, with Mrs. Lasser as national consultant and coordinator, a position which she still holds.

Even though this program has grown considerably, throughout the U.S., and 63 foreign countries, there are far too many areas in Tennessee still not providing this very worthwhile service. A local surgeon said, "Even though I really do try to help, you volunteers can get closer to some of these women than most doctors can. It seems that the patient won't talk as freely to a doctor as she will to another woman."

Mrs. Lasser's thoughts during her own recuperation were that if she could only talk to someone who had undergone a similar experience, she could be counseled and reassured. This the volunteer does in a confidential visit. She also leaves her name and telephone number, so that the patient knows that help is always available should the need arise.

Another doctor said, "Doctors didn't know enough about the program to recommend it. Now I tell my patients that there are women available who can help them. The patient has fears and needs someone who can be positive with her. She can live a life of quality, and be emotionally better. I know that you are available when I do need you. You know, more people need to know about this program."

This doctor knows that a request for a visit should be treated as any order or prescription that a doctor would write for his patient. The patient should not be asked if she wants to have a visit. She is unable to make a decision, since she doesn't know what we do. The Reach-To-

Recovery volunteer should be ordered in, as everything else, for the patient's welfare.

Another surgeon said, "This is a wonderful program, and it really helps a lot. My patients have been most appreciative, and I can tell a marked difference in their attitude after a visit has been made. The patients stop keeping this to themselves, and do talk about it. This is a healthy attitude."

The volunteer tries to get the patient to accept the realities of her situation, and this acceptance is the first positive step towards renewed good health.

In the training session, the volunteer learns not only what to say, but what not to say. She never gives any medical advice, but always refers these questions to the patient's surgeon. She is willing to do this type of work because she knows this is a crisis for any woman. She is behind the American Cancer Society motto, "Please Call Us."

This visit can be the beginning of a new more positive life. The confidence generated by the volunteer can have significant healing qualities. Her former routine was interrupted by surgery, but life goes on. The success of the program is marked when the patient returns to her everyday life, and puts her surgery behind her. But, while she needs us, we are there.

This program is now being accepted by most doctors as part of the rehabilitation team for post-mastectomies. Every hospital in Tennessee where mastectomies are performed should have this service available, so that everything that can be done for the total welfare of the patient will be done. It accomplishes little to have successful surgery if a psychological cripple remains.

The American Cancer Society in every locale will give full co-operation to set up a training session to carefully train new volunteers, to start a Reach-To-Recovery program. With Reach-To-Recovery available for every woman who has breast surgery, and with what seems like an insurmountable problem, no one need suffer this out in silent desperation. Can we meet this need in Tennessee? Please call us.

1239 Linville Street
Kingsport, Tennessee 37660

POTT'S PARAPLEGIA

DR. WILLIAM I. PARK: The first patient is a 42-year-old black female who was admitted to the Medical Service at the City of Memphis Hospital in May of 1972 with a four week history of pain in the thoracic spine region. There was no history of fever, cough, chills, numbness, weakness, bowel or bladder symptoms. Pertinent physical findings at that time revealed an angular gibbous at the T-6 level. Her lungs were clear to auscultation and percussion. Neurologic examination revealed hyperreflexia in the lower extremities. There was no clonus. Sensory examination was normal except for inconstant decreased sensation in the T-12 dermatome bilaterally. Roentgenograms of the thoracic spine, including laminograms, revealed a lesion in the T-6 vertebra with wedging which was felt to be most consistent with the diagnosis of Pott's disease. There was no associated cold abscess present at that time. Chest film revealed some old granulomatous changes in the hilar region but no evidence of active pulmonary disease. Sputum and urine studies for acid fast bacilli were all negative. The patient signed out of the hospital against medical advice before orthopedics and neurosurgery could see her for evaluation. She refused to return for follow-up and was never started on anti-tuberculous medications.

The patient returned to the hospital in February, 1973 with a history of having fallen one week previously. Since that time she had noticed numbness and weakness of the lower extremities. The patient's family had noted that she had difficulty in walking after the fall but there had been no problem with bowel or bladder control. They brought her to the Emergency Room on 2-27-72 by which time she had developed almost complete paraplegia at the T-6 level. She had complete loss of bowel and bladder control, had no motor function except slight extension of the left great toe and had only slight perianal sensation. Complete medical evaluation revealed no evidence of active pulmonary, genito-urinary or gastrointestinal tuberculosis. A neurosurgical consultant felt that the patient might be a candidate for a costotransversectomy and drainage of the previously described abscess. Orthopedic consultants evaluated the patient and confirmed the diagnosis of Pott's paraplegia at T-6. Laminograms of the thoracic spine showed a gibbous at T-6 and a paravertebral abscess with destruction of the body of T-6. It was felt that her recent trauma had contributed significantly to her neurologic deterioration. Therefore, it was elected to treat her conservatively for three weeks with anti-tuberculous drugs, strict bedrest and careful observation for neurologic improvement. The gibbous and bony prominences were

carefully padded to prevent any pressure sores. She was placed on a Cir-O-Electric bed and turned every four hours. She was started on isoniazid 100 mg t.i.d., streptomycin 500 mg intramuscularly b.i.d. and Ethambutol 400 mg b.i.d. Within 24 hours she was able to flex and extend her toes bilaterally. Bladder and bowel function returned. Over the next three weeks she gained no further neurologic return.

On 3-19-73 she was taken to surgery. Through a right thoracotomy, an anterior debridement with removal of the caseous paravertebral abscess, removal of the body of T-6 posteriorly to the posterior longitudinal ligament, and anterior fusion were carried out. A full-thickness piece of anterior iliac crest was used as a strut graft, wedged carefully into the vertebral column. She was placed in a body jacket which had been prepared and bivalved preoperatively.

Within 24 hours she was able to flex and extend her toes and continued to improve rapidly over the first week. Within the first week the toe flexors, toe extensors, hamstrings, quadriceps, anterior tibial and peroneal muscles all regained function. She was turned every four hours on a Cir-O-Electric bed. At the end of six weeks she had recovered almost all of her neurologic function and was discharged home in her cast. After three months she became ambulatory in a brace. The bone graft demonstrated amalgamation and healing to the bodies of T-5 and T-7. Her drugs will be continued for at least two years.

DR. LEWIS D. ANDERSON: We thought this case was particularly interesting for several reasons. First, bone and joint tuberculosis has become quite rare in our country and we see only one or two new cases a year. Secondly, it demonstrates how paraplegia is frequently precipitated by a flexion injury of the spine when there is a gibbous present, as in this patient at the level of T-6. Finally, it demonstrates the modern approach to tuberculosis of the spine, with a complete debridement of the involved tissues and anterior fusion using a strut graft. This patient made a remarkable recovery and has almost returned to normal activity. We think it is important that she continue her anti-tuberculous medication for at least two years to minimize the possibility of a recurrence.

DR. HAROLD B. BOYD: As Dr. Anderson has pointed out, bone and joint tuberculosis is rare in this country but it is still quite prevalent in many of the undeveloped countries of the world. It is still one of the most common orthopedic diseases in Africa and the Far East. We owe a great deal to Dr. Hodgson of Hong Kong who is really the father of modern surgical treatment for spinal tuberculosis. Hodgson pointed out the importance of removing the infected bone and caseous material and of

From the Department of Orthopedic Surgery of the Campbell Clinic and University of Tennessee-City of Memphis Hospital, Memphis, Tenn.

carrying out the spinal fusion anteriorly. Not only does this get rid of the diseased tissues, but it also allows decompression of the cord and enables the antibiotics to penetrate the involved area.

Dr. Hodgson also pointed out that with the patient on proper anti-tuberculous medication it is possible to operate through the pleural cavity without danger of spreading the infection to the pleural space. In earlier times this patient would have been treated either by costotransversectomy and incomplete drainage or by a posterior spine fusion without drainage of the abscess and the results almost certainly would not have been as good.

Renal Cell Carcinoma with Metastasis to the Left Femur

DR. PARK: This next patient is a 69-year-old black female who was admitted to the City of Memphis Hospital on 1-11-73 with a six week history of pain in the left thigh and a 15 pound weight loss. Her review of systems was completely unremarkable. The only pertinent physical findings revealed an elderly lady with evidence of chronic disease. She had tenderness over the middle third of the left thigh and femur. There was no erythema and no increased heat or swelling locally. After her admission a skeletal survey revealed a lytic lesion in the proximal third of the left femur without a pathologic fracture. An intravenous pyelogram and femoral arteriogram were obtained, which revealed a left renal mass, thought to be renal cell carcinoma. The arteriogram also showed extensive vascularity in the area of the metastatic lesion in the isthmus of the left femur.

It was believed the patient had an impending pathologic fracture, and to alleviate potential morbidity from a fracture, she was kept non-weight bearing and in a Hodgen's splint for one week until her workup was complete. On 1-21-73 she had an intramedullary Kuntscher nail inserted into the left femur through a Gibson approach under radiographic control. The area of the lesion was not exposed. Tissues curetted through the proximal portion of the femur confirmed the diagnosis of renal cell carcinoma. There was a moderate amount of bleeding post-operatively. She was again placed in a Hodgen's splint. Immediate quadriceps sitting and four-count exercises were started.

On 1-29-73 a left radical nephrectomy and splenectomy was carried out for palliation. Both incisions healed uneventfully. Fourteen days after her intramedullary nailing radiation therapy was started over the metastatic lesion of the left femur, consisting of 3000 R. over a period of three weeks. Three weeks after her intramedullary nailing she was started on progressive weight bearing on the parallel bars and with a walker. She had no difficulty until one week later, when she developed a spontaneous fracture through the lytic lesion. The alignment and position of the intramedullary nail and fracture remained

satisfactory despite the fracture. She had almost no pain even though she had sustained the fracture.

She gained eight pounds post-operatively in the four weeks she was in the hospital. She was able to go up a flight of 12 steps at home when last seen two months after her surgical procedures. The prophylactic nailing prior to any fracture saved this patient a great deal of morbidity and blood loss as would have occurred had the nailing been done after the fracture occurred.

DR. ANDERSON: We thought this patient was interesting in that her lytic lesion in the femur was discovered before a pathologic fracture had taken place. We believed that a fracture was very imminent and so we decided to carry out a retrograde medullary nailing from the region of the greater trochanter under X-ray control and without exposing the lesion. Dr. Park carried this out quite successfully and even though the patient did fracture the femur three or four weeks later she had almost no pain and was able to continue walking. Incidentally, recent X-rays have shown healing of the fracture with exuberant callus. The lytic lesion appears to be getting smaller following her X-ray therapy.

DR. ALVIN J. INGRAM: I certainly think that whenever possible a medullary nail is the best type of immobilization for a pathologic fracture of this sort. Sometimes it is not possible to use one because of the location of the fracture but in this case medullary nailing proved to be ideal.

DR. PETER G. CARNESALE: Dr. Park, why were the kidney and spleen removed when there was a metastatic disease to bone?

DR. PARK: The urologists explored this patient with the idea that if they could remove the tumor there would be less likelihood of complete blockage of both of her ureters. As you will note from the history, a splenectomy was carried out at the same time because there was some spread of tumor to the spleen. The surgeons certainly did not think that they had cured the patient but carried this out merely as a palliative procedure.

Monarticular Rheumatoid Arthritis of the Left Knee

DR. PARK: The third patient is a 56-year-old black female who was admitted on 1-11-73 to the Orthopedic Service with a two year history of chronic pain and effusion in the left knee. There was no history of tuberculosis, rheumatoid arthritis or gout. Though she had been followed for hyperurecemia thought to be secondary to thiazide diuretics for hypertension. There

was no complaint of other joint involvement. She had been followed by the Rheumatology Clinic and had had complete evaluations 18 months prior to this admission. The rheumatoid studies on synovial fluid and serum were negative. The sed rate was elevated to 60 mm per hour. Joint aspirations have been negative for uric acid and acid fast bacilli. She had been treated with salicylates and indomethacin with a fair response initially. From August of 1972 through January of 1973 the patient developed severe pain, increased heat, and a persistent effusion in the left knee. Because this had become intolerable, she sought further consultation, and was admitted to the Orthopedic Service for diagnostic studies, evaluation and treatment.

The joint was aspirated and the fluid was negative for uric acid crystals, white cells, calcium pyrophosphate crystals and acid fast bacilli. Her serum uric acid was normal. Her sed rate was 47 and 52 mm on two determinations. Repeat X-rays showed a lytic area in the subchondral area of the medial condyle which had not been present on X-rays made six months prior to this visit. Her first strength PPD reaction measured 17 mm. AP and lateral chest films revealed no evidence of active tuberculosis.

The differential diagnosis included monarticular rheumatoid arthritis and tuberculosis. She was maintained on isoniazid, para-aminosalicylic acid and streptomycin for three weeks, following which an arthrotomy was performed. The lytic area in the medial femoral condyle was found to be a large subchondral rheumatoid cyst. Frozen sections confirmed the diagnosis of rheumatoid arthritis and there was no evidence of granulomatous disease. A Charnley knee fusion was performed. The clamps were left in place for a period of six weeks, following which she was then placed in a long leg walking cast. When last seen two months post-operatively early fusion was present.

DR. ANDERSON: The diagnosis in this patient was very obscure prior to surgery. I actually thought she probably had tuberculosis of the knee, judging from her X-ray appearance. It is also rather interesting that her test for rheumatoid factor was negative in the blood and also in the joint fluid of the involved knee. Another red herring was her positive PPD. The sedimentation rate was elevated, but this was consistent with either tuberculosis or rheumatoid arthritis. We decided to put her on anti-tuberculous medication prior to surgery in the event tuberculosis should be present so she would not get miliary spread following operation.

DR. INGRAM: She certainly had a rather rapid progression of the lytic area over the six month period from August 1972 through January 1973. I think it is unusual to see this much

progression secondary to rheumatoid arthritis over a short period of time.

DR. HUGH SMITH: Did you say she had no involvement in any other joint?

DR. PARK: Yes, Dr. Smith, that was the case. She had absolutely no involvement in the small joints of her hands or any other joints.

DR. ROBERT TOOMS: Had you known in advance the diagnosis to be rheumatoid arthritis, would you have considered a total knee replacement rather than an arthrodesis?

DR. ANDERSON: In this particular case we thought arthrodesis was best because of her occupation. She works as a short order cook and is on her feet for at least eight hours a day. We doubted whether a total knee could stand up under this kind of treatment. Also, we were not at all sure of the diagnosis and thought that it would be contraindicated to insert a total knee prosthesis in the face of infection.

DR. TOOMS: I certainly agree with that. I think whether one does a total knee or an arthrodesis must be carefully individualized according to the patient's age, activities and other joint involvement.

DR. T. L. WARING: We sometimes forget that rheumatoid arthritis can occasionally begin in one of the major joints instead of the usual initial involvement in either the hands or the feet. Do we know what the chances are of a patient having rheumatoid arthritis when he presents with a single monarticular synovitis of a knee?

DR. PARK: One of the residents, Dr. Ken Moore, studied this problem a few months ago. In reviewing the experience with monarticular arthritis at the Campbell Clinic and City of Memphis Hospital, he found that approximately half of the patients recovered spontaneously and had no further trouble in that joint or elsewhere, about one-quarter of the patients who were followed over a period of several years ultimately proved to have generalized rheumatoid arthritis involving many joints. The final one-quarter of the group that was followed continued to have chronic synovitis of the one presenting joint but developed no symptoms in other joints. We have not followed this particular patient long enough to know whether she will ultimately prove to have generalized rheumatoid arthritis or whether it will be confined to this one knee.

THE LABORATORY DIAGNOSIS OF CANCER

Recently at the annual meeting of the Association of Clinical Scientists three full days were devoted to the subject of the laboratory diagnosis of cancer. Because of the relevance of this subject to the practice of both clinical and laboratory medicine, it seemed worthwhile to mention here some of the aspects of this vast field of investigation that were discussed. Though obviously brief and inadequate, hopefully this overview may provide some information as to the type of research being pursued, in some cases only on a very limited scale, in the attempt to provide techniques and methods of more practical future clinical diagnostic value.

The generalization that there is no "test for cancer" today continues to hold true. The problem is predominantly one of specificity rather than sensitivity—certain tests have been shown occasionally to be positive long before clinical signs of malignancy appear (e.g., carcinoembryonic antigen, or CEA, in colon cancer), but such abnormal results may also occur in patients who have non-malignant disease (for example, alcoholic cirrhosis) and who never develop intestinal cancer. An additional problem is that while the most valuable such tests are ones that would detect the common forms of cancer (breast, lung, colon), those that are currently most helpful apply largely to uncommon neoplasms, such as urinary catecholamine metabolites in pheochromocytoma and monoclonal serum proteins in lymphoplasmacytic malignancies. Nationwide coordination of individual research projects by the National Cancer Institute and other laboratories should result in continued progress along these lines.

The potential value of CEA and alpha-fetoprotein in cancer diagnosis, while having diminished somewhat following initial studies, remains considerable, but problems with non-specificity as well as lack of sensitivity have become apparent. (This subject will be covered in greater depth in a future column.)

From the Department of Pathology, Methodist Hospital, Memphis, Tenn.

Other studies of the immunological aspects of cancer have yielded a vast amount of information of value in the understanding of etiology and pathogenesis, if not the diagnosis, of cancer. Cellular immune mechanisms seem consistently to be abnormal in patients with solid epithelial tumors, while humoral immune factors may be of greater importance in the lymphoreticular malignancies. Virological studies also have not proven to be of great assistance in cancer diagnosis, though such possible future implications in this research area may appear, such as, for example, testing for specific viral antibody in persons with suspected lymphoma (analogous to E-B virus antibody in Burkitt's lymphoma).

In the field of biochemistry, enzymes have been extensively evaluated in tumor patients. Hepatic metastases may be detected by several non-specific enzymes, all of which are relatively sensitive indicators of infiltrative disease in the liver. Elevated total LDH and "slow fraction" isoenzymes (3, 4, and 5) often suggests the presence of malignant disease. Specialized electrophoretic techniques have revealed several intriguing serum protein abnormalities that so far have been seen exclusively in patients with cancer or leukemia. Polypeptide hormones, such as ACTH, HCG, and parathyroid hormone, have been found to be produced by many tumors of non-endocrine organs, notably the lung, and thus may in these cases serve as convenient tumor "markers." A vast array of biologically active substances have now been identified as secretory products of the enigmatic carcinoid tumor, leading to increased understanding of the dispersed neuroendocrine system and its neoplasms. Also present in elevated quantities apparently only in patients with neoplasms are urinary "polyamines," a finding of great potential diagnostic significance.

Chromosome abnormalities in leukemic cell populations have proven helpful in diagnosis and prognosis; this unfortunately is not true for solid tumors. Refinements in technique have furthered the value of exfoliative cytology, though some organ systems, such as the gastrointestinal tract, still do not lend themselves readily to large

continued on page 32

CHRONIC SUBDURAL HEMATOMA

Since the symptoms of chronic subdural hematoma are usually not localizing and since they usually develop insidiously, this pathologic condition is difficult to diagnose. Because of the difficulty in diagnosis and because the condition occurs most often in elderly males who may be poor candidates for invasive studies, non-invasive techniques such as the brain scan, isotope flow study, and echoencephalography assume particular importance.

This elderly white male had a history of non-parkinsonian familial tremor plus long standing paraparesis with a sensory motor level deficit below the umbilicus secondary to myelography or spinal anesthesia. Symptoms included some residual spastic paralysis plus urinary incontinence. Over the last few months, the patient developed a poor attention span, poor memory, and some difficulty remembering words. His

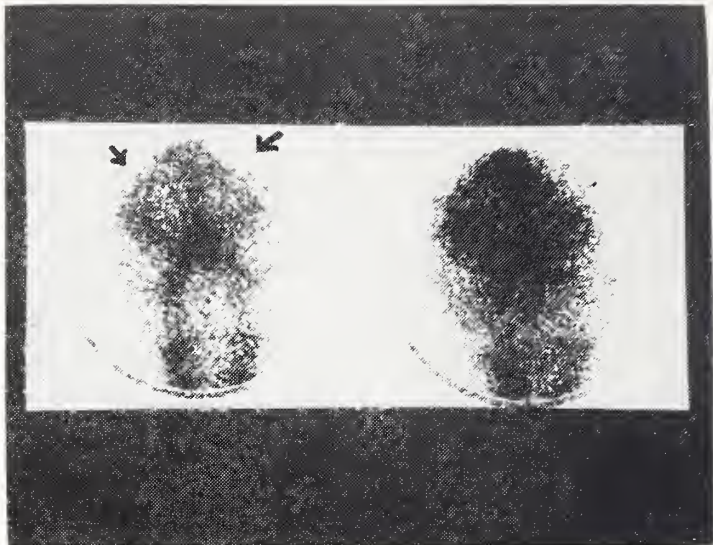


FIG. 2

wife worried that he was “developing mental problems.”

The brain scan was within normal limits (Figure 1). The isotope flow study from the anterior view (Figure 2) showed a large perfusion defect along the left hemisphere and a small perfusion defect along the right hemisphere. These defects were present in the arterial and venous phases of circulation. The echoencephalogram showed an abnormal echo close to the left lateral skull (Figure 3) plus a seven millimeter shift of the midline to the right at the level of the third ventricle (Figure 4). Subsequent cerebral angiography (Figure 5) revealed a subdural hematoma with a shift from the midline at the internal cerebral vein. Sub-

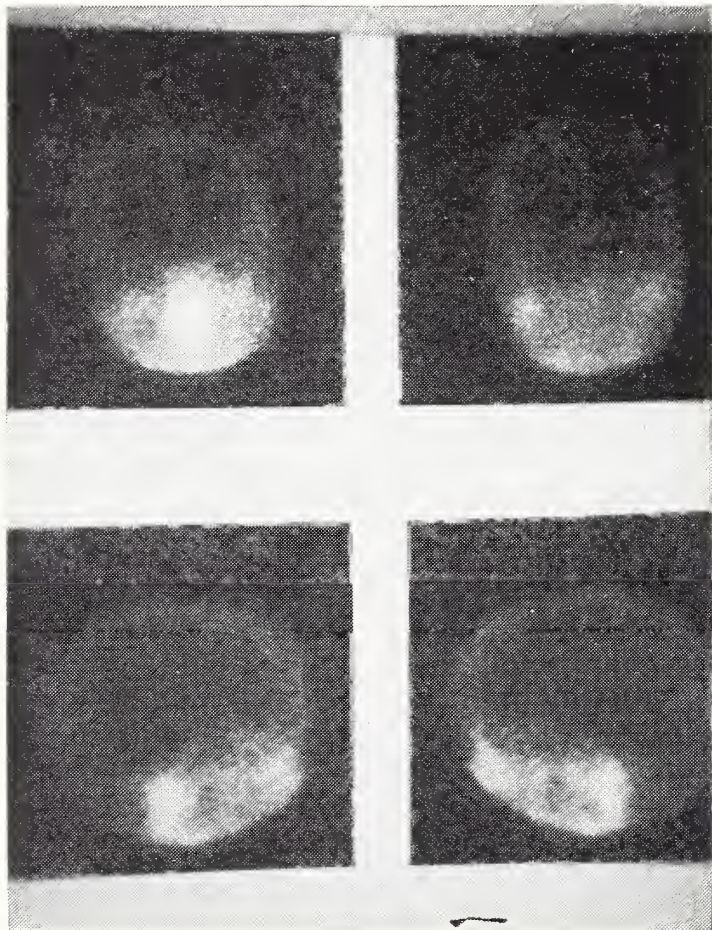


FIG. 1

From the Department of Nuclear Medicine, Park View Hospital, Nashville, Tenn. 37203.

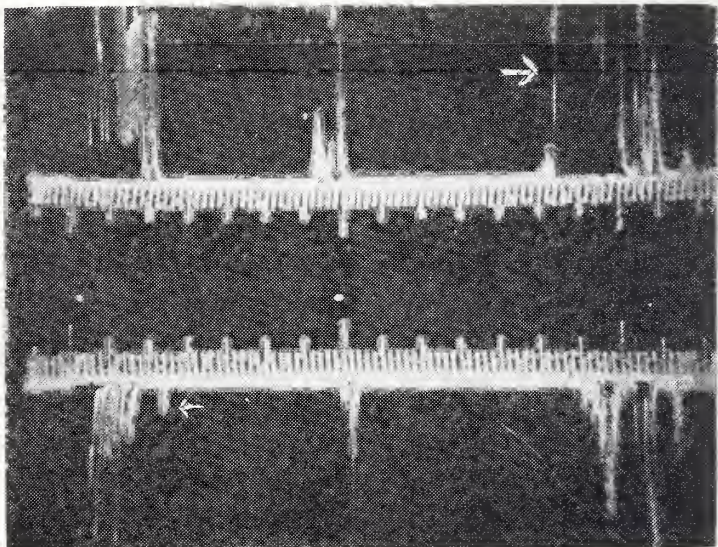


FIG. 3

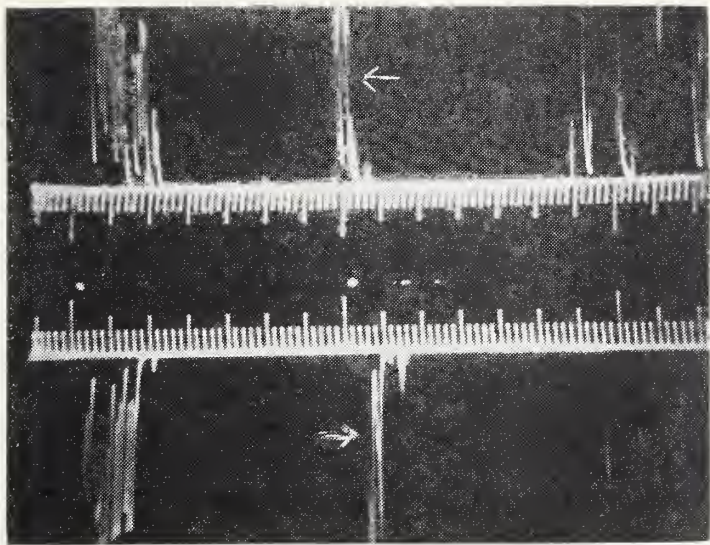


FIG. 4

sequent removal of the bilateral hematomas led to significant improvement in the patient's more recently acquired symptoms.

In patients with chronic subdural hematoma, the most common abnormality on an isotope study is a unilateral accumulation of isotope along one side of the skull (Figure 6). It is seen on the anterior and posterior projections and corresponds to a unilateral chronic subdural hematoma. However, when the subdurals are bilateral, as in this case, then the symmetrical increase in isotope accumulation on both sides is difficult or even impossible to appreciate. Fortunately, the vast majority of subdural hematomas are unilateral. On rare occasions

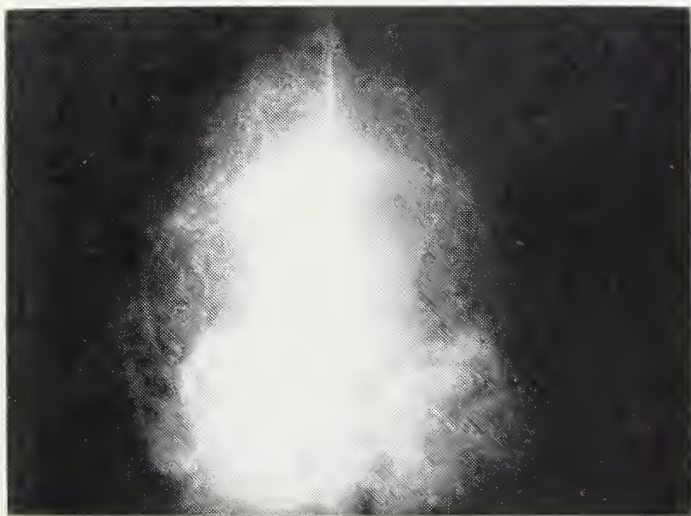


FIG. 5

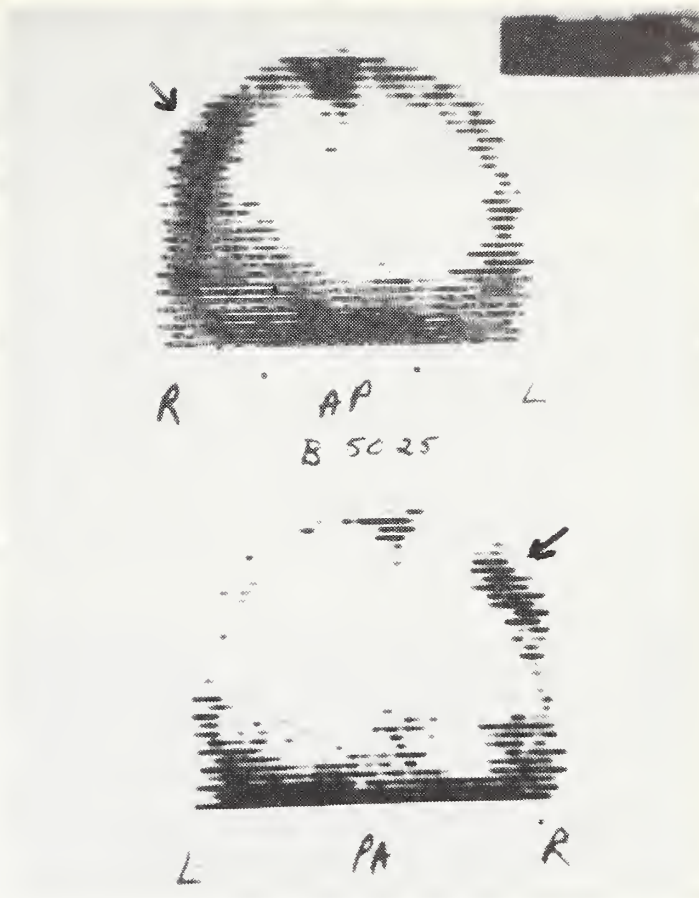


FIG. 6

the pattern of isotope accumulation along the skull may show a central area of decreased radioactivity. The decreased perfusion noted in the isotope flow study is frequently easier to detect than the abnormality on the scan (as in this case) and is a critical companion study to the scan.

The echoencephalogram will often show an abnormal echo close to the skull at the interface of the membrane around the hematoma. A midline shift may occur at the level of the third ventricle, or, when the effusion is larger, it may be seen at the level of the septum pellucidum. Bilateral subdural hematomas usually cause less shift than unilateral subdural hematomas. Since the symptoms are usually non-localizing and non-specific, these non-invasive studies are of great assistance in selecting those patients on whom carotid angiography will be performed.

ROBERT L. BELL, M.D., *Director*

HISTORY

The patient is a 25-year-old housewife and social worker who had the onset of marked fatigue three months prior to admission. One month prior to admission she developed severe, right upper quadrant abdominal pain and low grade fever. A cholecystogram failed to show visualization of the gall bladder. A laparotomy was performed and the gall bladder was found to be normal. The liver was noted to be markedly congested and a biopsy was taken which

showed hepatic venous congestion. Following surgery she was noted to have a prominent jugular venous pulse with very rapid X and Y descents. There was a loud S₃ gallop. She was transferred to St. Thomas Hospital for further evaluation. There had been no history of chest trauma. She at no time had chest pain, and no notable shortness of breath. There was nothing to suggest collagen vascular disease in the history or physical examination. Her skin test for tuberculosis had been positive for the preceding three years. Her skin test at the time of admission was negative. Bilateral pleural effusions were present, and thoracentesis revealed 700 cc of straw colored fluid with a specific gravity of 1.016 and a protein concentration of 1.7 gms%. Histology and cultures on the pleural fluid showed no abnormalities. The following electrocardiogram was taken. (Fig. 1)

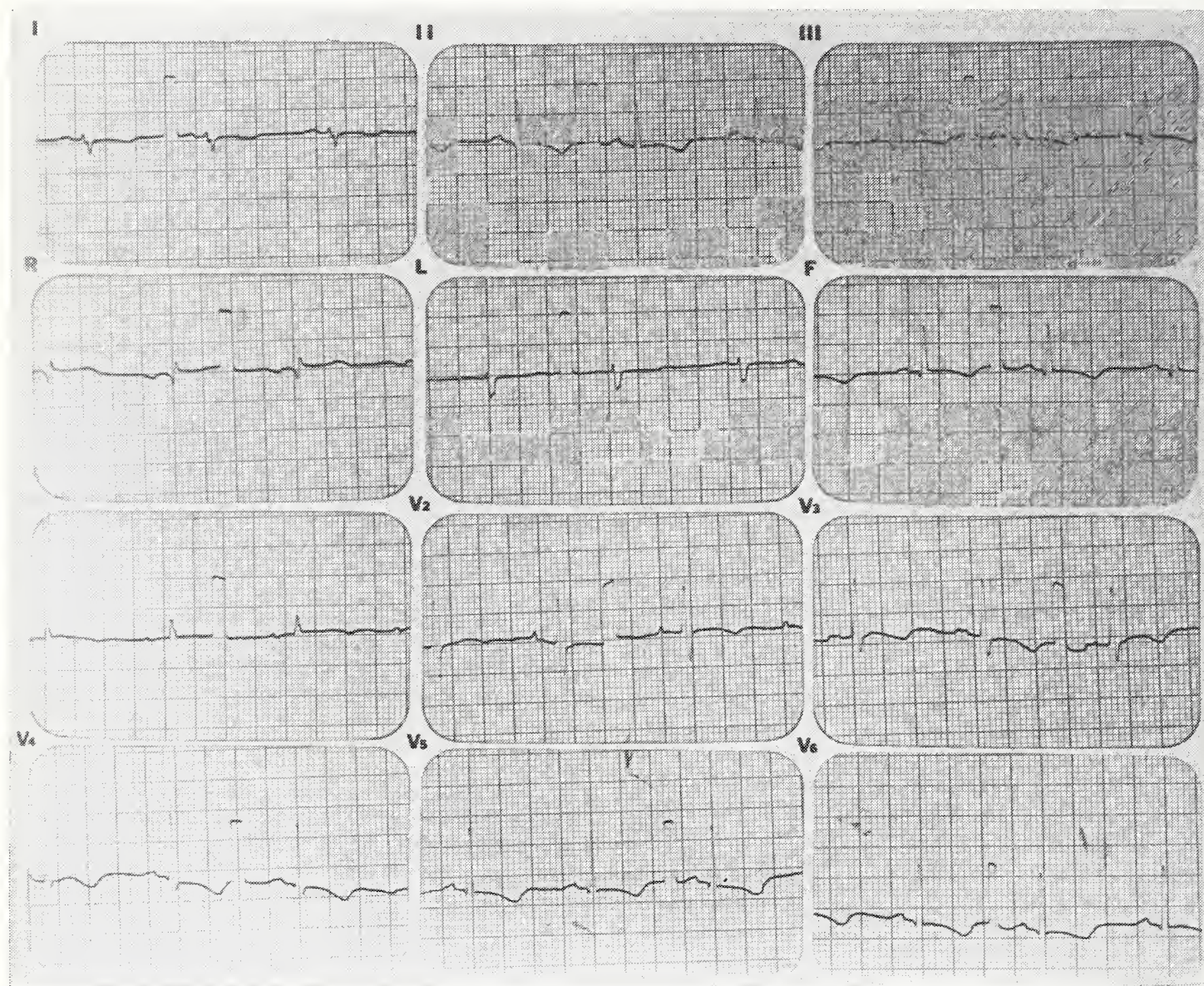


FIG. 1

The electrocardiogram shows a rate of 75 per minute and is quite regular. The PR interval is normal at 0.18 seconds. The QRS forces are notably rightward causing an S wave in standard lead 1. There is a small Q wave

in standard lead 3. In addition to this there is a rather prominent R wave in V₁ without QRS waves in this lead. The T waves are inverted in leads 2, 3, AVF and throughout the precordial leads. There is slight ST segment elevation in leads 2 and AVF.

From the Department of Cardiology, St. Thomas Hospital, Nashville, Tenn. 37203

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Radiographic Evaluation for Renovascular Hypertension

Rapid infusion intravenous urography is widely utilized as a screening radiographic examination. The method of rapid intravenous infusion of aqueous iodinated contrast material with film sequencing at 1, 2, 3, 4, 5, 15, and 30 minutes is utilized to ascertain the following characteristics, which are indicative of renovascular hypertension:

1. Calyceal appearance time—A difference in calyceal appearance time is the most reliable and significant radiographic finding, demonstrating a significant difference in glomerular filtration rate resulting from arterial stenosis.
2. Difference in volume and concentration of opacified urine in the collecting structures—indicates a reduction in filtration rate and an increase in sodium and water reabsorption affecting the appearance of contrast material which is an osmotic diuretic and a fixed solute.
3. Difference in measured length of the kidney greater than 1.5 cm. implies atrophy of renal parenchyma as a result of chronic ischemia secondary to renal artery stenosis.
4. Contour irregularity of the opacified renal pelvis or ureter indicates the presence of large, tortuous collateral vessels causing extrinsic pressure deformities on the collecting system, distal to an area of renal artery stenosis.
5. Irregularity of the renal outline in a patient with hypertension suggests the possibility of parenchymal loss secondary to a segmental infarction.

The reliability of rapid infusion intravenous urography as a screening test is dependent on the meticulous performance of the examination and a critical interpretive evaluation. Under the control of the most experienced observers, the accuracy rate is approximately 80%, with 20%

false positives and false negatives.

Renal isotope scan is used as a screening procedure in many medical centers. Standardization of the technique is difficult; the reliability of the method can achieve a 90% accuracy but in these instances involves a false positive rate approaching 40 to 50%.

Renal arteriography is the most reliable radiographic means for screening renovascular hypertension. In addition, this examination serves to detail vascular anatomic characteristics: demonstrating the site, severity, number, and types of vascular lesions. Atheromatous lesions may indicate functional significance by their degree of narrowing and enable the observer to prognosticate the likelihood of cure or improvement by surgical procedures. In addition, arteriography provides the possibility of radiographic assessment of arteriolar nephrosclerosis and the renal cortex, and demonstrates the presence of other lesions in patients who present with symptoms and signs of hypertension. For instance, hypernephromas, adrenal cortical and medullary tumors, arteriovenous malformations, and polycystic kidneys may be detected initially by the utilization of renal arteriography as a screening radiographic procedure.

The initial flush aortogram in the supine position is supplemented by additional injections in appropriate projections for purposes of demonstrating most accurately the configuration of origins of the renal artery from the aorta.

Routine selective renal arteriography is necessary for the following:

1. Multiple renal arteries which are unsuspected or undetectable on flush aortography can be identified.
2. Multiple injections in varying projections may be necessary in order to demonstrate in profile and in optimal detail the exact site, degree of narrowing, and extent of peripheral vascular lesions.
3. Characteristics of the renal cortex are more clearly defined.

The results of selective renal arteriography indicate a 28% increased yield in patients who initially demonstrated an abnormal mid-stream

From the Hypertension Center and the Department of Radiology, Vanderbilt Hospital, Nashville, Tenn. 37232.

aortogram, and a 6% additional yield in patients who initially demonstrated a normal mid-stream aortogram. However, in many instances, a significant lesion was identified *only* after the performance of a selective injection.

The advantages of selective renal arteriography far outweigh the increased time, expense and complication rate attendant to the procedure.

HENRY BURKO, M.D.
Dept. of Radiology

* * *

Laboratory Medicine

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scale screening methods. Finally, the addition of electron microscopy to the use of the simple

light microscope has enhanced the capabilities of the tumor morphologist in the diagnosis of a wide variety of puzzling neoplasms.

DEAN G. TAYLOR, M.D.

* * *

EKG of the Month

continued from page 30

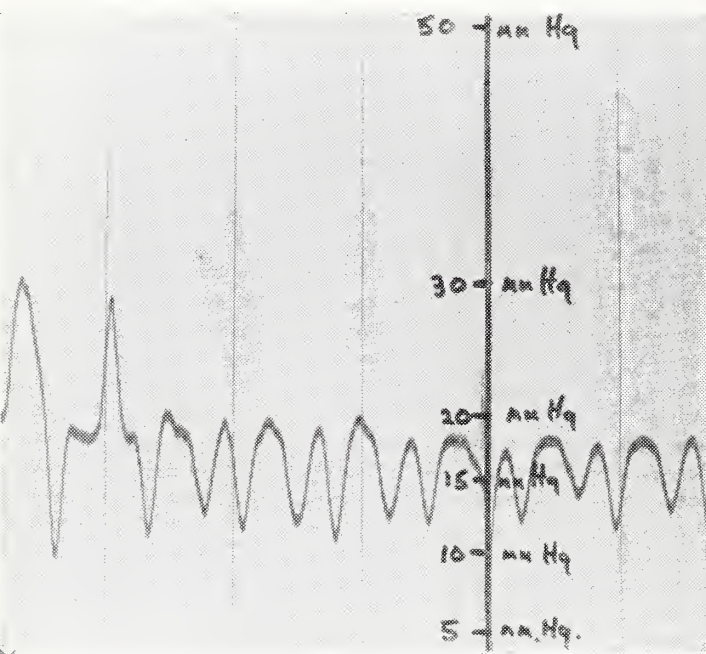


FIG. 2. Intracardiac pressure curve showing diastolic "dip" and plateau of right ventricular pressure (on left) and marked X and Y descent of right atrial pressure (on right).

The S₃ Q₁ pattern noted in this tracing is

markedly suggestive of increased pulmonary arterial pressures. The rightward and anterior forces are diagnostic of right ventricular enlargement. The very widespread ST-T segment changes are compatible with pericarditis. The possibility of myocarditis as etiology for these ST-T wave changes cannot be excluded. Cardiac catheterization was carried out and the patient was noted to have very prominent A and V waves in the right atrium. (See Fig. 2) There was also a marked diastolic dip and plateau in the right ventricle. The PA pressures were 38 mm Hg. The end diastolic pressures in the right and left ventricle were in the range of 22 mm Hg. These findings are very suggestive of a constrictive pericarditis or restrictive cardiomyopathy. Surgical exploration was carried out.

Final diagnosis: S₁ Q₃ pattern with rightward and anterior terminal forces of right ventricular enlargement. Widespread T inversion with ST coving suggestive of chronic pericarditis and/or myocarditis. Constrictive thickened pericardium was removed surgically.

HARRY L. PAGE, JR., M.D.
W. BARTON CAMPBELL, M.D.

* * *

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FAMILY PHYSICIANS, INTERNISTS, GENERAL PRACTITIONERS, ORTHOPEDIC SURGEONS, and OB-GYN needed for various communities throughout Tennessee. All opportunities are located in towns with a modern, fully-equipped, JCAH approved hospital. **Contact:** E. J. Ryan, Jr., Director-Medical Relations, Hospital Corporation of America, P.O. Box 550, Nashville, Tennessee 37203.

Clinical Presentation: 82-year-old black male with weakness, dizziness, melena and anemia.

Please examine the upper gastrointestinal study, Figures 1 and 2 and pick one diagnosis:

- (1) Carcinoma
- (2) Food particles
- (3) Bezoar
- (4) Multiple adenomatous polyps

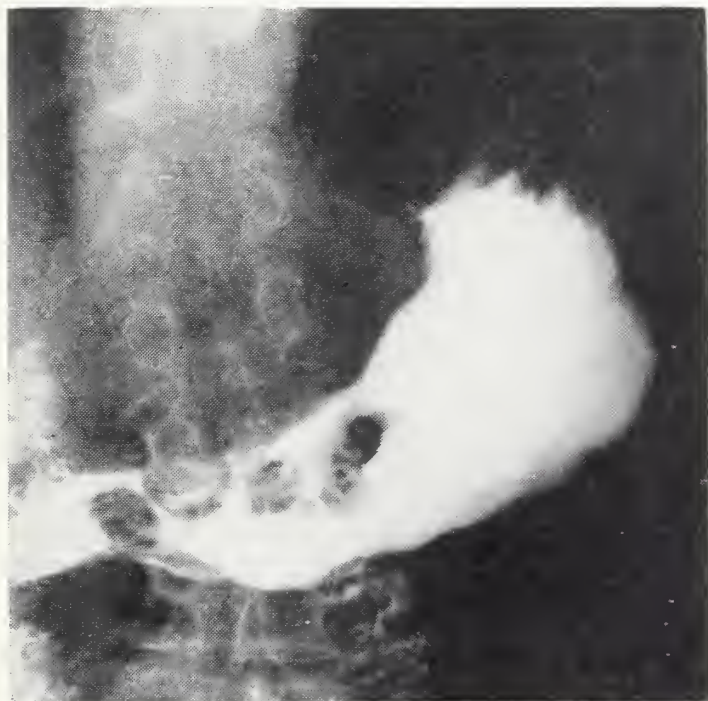


FIG. 1

ELUCIDATION

Note in figure 2c and 2d, which are spot films of the gastric antrum, that ovoid radiolucencies are attached to an oblong radiolucency. This is a cluster of polyps attached to a stalk.

Of the lesions producing ovoid filling defects in the stomach, adenomatous polyps are by far the most common. Leiomyomas are a distant second and all other lesions combined (lipomas, neurofibromas etc.) are a distant third.

These tumors are almost always benign and only rarely are found to be malignant, especially if less than 2 cm in diameter. Roentgenographically, one seldom sees an ulcer within a gastric polyp because they infrequently ulcerate deeply enough to retain Barium.

Low gastric acid is found in 80 to 90% of patients with gastric polyps and achlorhydria in

From the Department of Radiology, University of Tennessee Medical School, Memphis, Tenn. 38103.

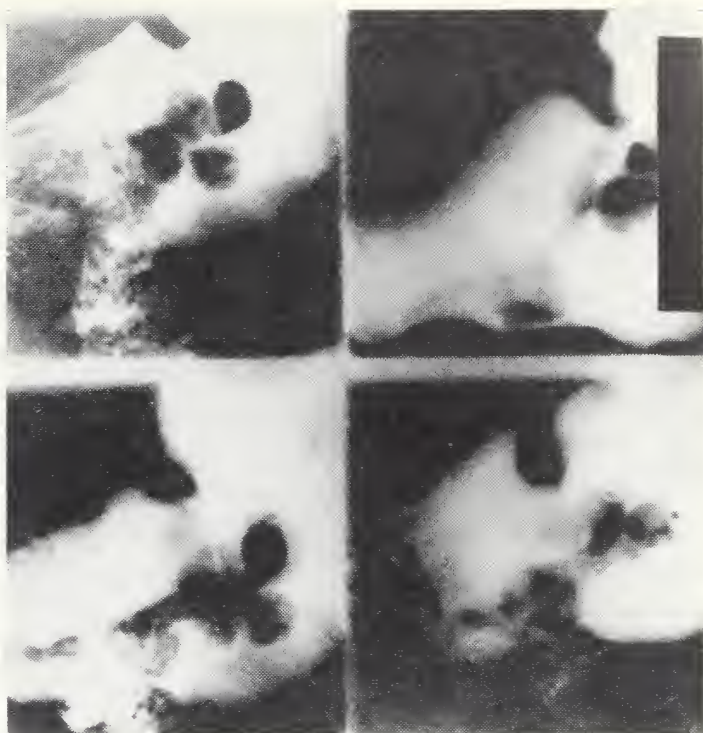


FIG. 2

5% of these. This patient's anemia was probably a combination of iron deficiency and of low grade chronic blood loss because of very slow bleeding from the polyps. He was not achlorhydric.

The 2 most common complications associated with gastric polyps are bleeding and ulceration. As a result of the bleeding, many of these patients suffer with a hypochronic anemia. Because of the achlorhydria, they occasionally are under the harrow of pernicious anemia.

These polyps are usually removed surgically, but Marshak has followed 31 patients with gastric polyps for up to 12 years with serial upper gastrointestinal studies and has demonstrated no growth of any of the polyps thus averting operations in these patients.¹ The diagnosis in the patient presented here was obtained by gastroscopy and biopsy through the gastroscope. The pathological report failed to show malignancy, so the patient was discharged on oral Iron sulphate to return to the hospital if further complications developed. The bleeding was not felt to have been rapid enough to warrant an operation in such an elderly patient.

Diagnosis: Multiple gastric adenomatous polyps.

STEPHEN GAMMILL, M.D.
JERRY PHILLIPS, M.D.

REFERENCE

1. Marshak, RH, Feldman, F: Gastric Polyps. *Amer J Dig Dis*, 10:909-935. 1965.



from the tennessee department of public health

YEAR END REVIEW

Across the state the Tennessee Department of Public Health employs 67 physicians, 150 environmentalists more than 80 engineers, 15 toxicologists, about 300 secretaries and seven attorneys. It maintains over 3500 personnel through its five bureaus and thirty divisions. Though their jobs vary considerably, they share a common objective—protecting and improving the overall health of Tennessee's four million residents.

The following summary of department activities over the past year has been prepared to introduce readers to a few of the many areas of public health involvement. (The summary is an attempt only to be representative of department activity rather than all-inclusive of major concerns.)

JANUARY The Georgia-Tennessee Regional Commission gained approval by HEW as the areawide comprehensive health planning agency for the Southeast Tennessee Planning Region. Administrative offices are located in Chattanooga.

The Division of Air Pollution Control began full operation of six new continuous air monitoring trailer laboratories. The portable units have been used extensively over the year to monitor air quality near industries and municipalities.

Personnel of the Immunization Epidemiology Section assisted the Madison County Health Department control an outbreak of measles in the Jackson area. Nearly 3000 children were inoculated.

A two-day conference on "Techniques of Solid Waste Management" was held in Knoxville by the Division of Sanitation and Solid Waste. The conference drew over 400 city and county officials, local environmentalists and industry representatives.

FEBRUARY The first of 35 modular ambulances purchased through the Governor's Highway Safety Program was delivered by Emergency Medical Services to Bledsoe County.

Infant and Toddler Nutrition Seminars co-sponsored by the department in Memphis, Jackson, Nashville and Knoxville were attended

by over 600 nurses, physicians, dieticians and students.

The Bureau of Environmental Health Services registered Tennessee's 70th approved solid waste disposal site.

MARCH Sixteen applications for assistance were approved by the Candidate Evaluation and Selection Subcommittee of the Renal Advisory Committee. These 16 were among 84 applications for financial or facility assistance approved during the year.

Materials stored at packaged disaster hospitals in Sweetwater and Cleveland were utilized during flooding of lower East Tennessee. Two hundred cots from the Cleveland hospital were among materials transported to Chattanooga and returned to storage when conditions allowed.

The Bureau of Personal Health Services was granted \$665,000 in federal funds for its venereal disease control program. A supplemental VD grant of \$335,000 was requested and received later in the year.

APRIL The state Dental Health Residency Program was approved following a site visit by a committee of the American Dental Association's Council on Dental Education.

More than 300 persons attended training schools for wastewater treatment plant operators in Knoxville, Jackson and Columbia sponsored by the Division of Sanitary Engineering.

MAY A \$200,000 contract was signed with Meharry Medical School for the study, research and treatment of sickle cell anemia.

An outbreak of rubella at a Rhea County high school was investigated by the epidemiology section of the Bureau of Personal Health Services. Three of forty persons exposed were pregnant and two of these underwent therapeutic abortions. Mass immunizations brought the outbreak under control.

Federal court action to bring army ammunition plants in Chattanooga and Kingsport into compliance with state water quality standards was initiated by the Division of Water Quality Control. The precedent setting suit is still under litigation.

Hill-Burton loans and grants totaling \$8,823,599 were approved for the \$10 million Holston Valley Community Hospital in Kingsport. Federal funds totaling \$890,560 were made available for Collins Chapel Hospital in Memphis.

A letter signed jointly by the Commissioners of Public Health and Education was sent to state school authorities enabling them to identify children deficient in required immunizations. This preceded a major campaign to immunize all children entering school this past fall.

JUNE A seven-member Hemophilia Advisory Committee was appointed to advise and assist the Bureau of Medical Care Services in establishing guidelines, rules and regulations for implementing the Hemophilia Program.

Tennessee's Occupational Safety and Health Plan gained approval by the U. S. Department of Labor delegating to the Department of Public Health responsibility for administering the occupational health portion of the law.

A list of 294 municipal and county entities applying for state solid waste management funds was forwarded by the Bureau of Environmental Health Services to the Department of Finance and Administration for allocation of the funds. The applications indicated that approximately 85% of the state's residents now have an approved landfill site available.

The Division of Grants Management received \$138,000 from the Appalachian Regional Commission for use in the Upper Cumberland Regional Health Care Delivery System. The Division of Air Pollution Control received a \$460,000 continuation grant from EPA.

JUNE The department's vital records section initiated steps for converting many of the eight million vital statistics housed at the Cordell Hull Building in Nashville from a manual retrieval to an automatic random-search encoding microfilm system.

Emergency Medical Services received Office of Urban and Federal Affairs grants of \$200,000 for modular ambulance purchases and \$535,000 for the Governor's Highway Safety Program.

Interviewers began surveying residents across the state concerning their current health status and health needs as a part of the health statistics project of the Office of Policy Planning.

AUGUST All fiscal agents and providers were notified of increases in fee schedules for phy-

sicians, dentists and pharmacists under the Medicaid program. Fees had previously been based on 1968 cost figures.

"Health in Tennessee, a Statistical Overview," a manual containing statistics and maps pertaining to population, personal health, environmental health and health resources, was published by the Office of Comprehensive Health Planning.

SEPTEMBER Standards for rental housing in Tennessee were drawn up by the housing and recreation section of the Division of Environmental Sanitation and Solid Waste Management. An advisory committee composed of landlords, tenants and regulatory agencies was appointed to review the standards.

A \$20,000 mobile laboratory was delivered to the Division of Air Pollution Control providing on-site air source sampling capabilities. The van can be adapted for use as a continuous monitoring laboratory during emergency episodes.

A contract of 58 more modular ambulances to be distributed during the Governor's 1974 Highway Safety Program was awarded to a Shelbyville firm.

OCTOBER Great Smoky Mountain resort towns Gatlinburg and Pigeon Forge were ordered to cease all new construction until wastewater treatment plants sufficient to meet their needs could be constructed. The order was prepared by the Division of Sanitary Engineering.

The Bureau of Medical Care Services continued efforts to keep state institutions qualified for participation in Medicare and Medicaid programs. The certification staff offered consultative and surveying services to hospitals, nursing facilities and independent laboratories.

A first payment of \$326,396 in federal Hill-Burton Project funds was forwarded to Sevier County Hospital. The \$1,036,452 project has qualified for a \$629,699 Hill-Burton grant and an additional \$181,844 grant from the Appalachian Regional Commission.

NOVEMBER The Bureau of Environmental Health Services reported that since January 1, 1973:

The Division of Air Pollution Control has issued 22 administrative orders, and initiated one court action; The Division of Environ-

continued on page 37



from the tennessee department of mental health

ALCOHOL AND HIGHWAY SAFETY IN TENNESSEE

The combination of alcohol and driving was first recognized as a problem in 1904, and was shown to be a serious one in 1924. Through the years, the problem has increased significantly. Today, drinking contributes approximately 28,000 to the nation's annual toll of about 55,000 auto deaths. This constitutes more than half of all fatal accidents on the American highways.

Alcohol has been found to be the largest single factor leading to fatal accidents in Tennessee, as well as throughout the nation.

This year the Tennessee Department of Mental Health, Alcohol and Drug Abuse Section, responded to this problem by initiating action to determine the extent of the problem and the current procedures for dealing with it, and then by seeking to devise a program by which we could effectively combat the problem of drinking drivers on our highways.

The drinking driver was responsible for approximately 650 deaths on Tennessee highways last year. The drinking driver also accounted for thousands of minor injury and property damage accidents. The Department of Safety further made 4,600 D.U.I. (driving-under-the-influence) arrests for the last one year period, of which 1,240 of these were reduced or dismissed.

The present manner of dealing with D.U.I. offenders under Tennessee Law is a \$50.00 fine, 6 months suspension of driver's license, and a minimum 48-hour jail sentence. However, most offenders receive a suspended jail sentence and if their license is suspended receive a restricted license—although there is no method by which the restrictions can readily be enforced. For all practical purposes, then, the offender is only fined \$50.00.

To formulate a method to reduce this problem, the Committee on Highway Safety was created as a sub-committee of the Governor's Alcohol and Drug Dependency Advisory Commission. With the complete support of Governor Dunn, a group composed of businessmen and specialists in alcohol and highway safety

related fields was commissioned to study the problem of the drinking driver and to make recommendations. Included on the Committee are representatives from law enforcement, judiciary, mental health, and civic service organizations. More specifically, the function of the Committee will be two-phased. First, the Committee will be charged with defining the drinking driver problems unique to Tennessee and determining how best to deal with it. Although drinking driver programs exist nationally, objectives must be formulated to operate within the framework of the existing laws unique to Tennessee. The need for the development of a program to meet the needs of Tennessee is also desirable because of the relative failure of many programs in many other states.

Secondly, although a few organizations are grappling individually with the drinking driver problem in Tennessee, the Committee must attempt to coordinate a statewide, multifaceted program to effectively deal with it. For example, AAA has developed four D.U.I. schools in East Tennessee, while the Jaycees have initiated "Operation Threshold," a national Jaycee program of public awareness. A highway safety program however is successful only if all components, public awareness, law enforcement, judiciary, and mental health, are functioning as part of a total system. The Committee on Highway Safety may assume the role of coordinating agencies such as AAA, Jaycees and Government agencies in a concerted effort on a statewide level. An experimental project scheduled to be activated November 15 in Memphis will be studied by the Department of Mental Health and the Highway Safety Committee. This project, funded by the Department of Mental Health and the Office of the Governor's Highway Safety Representative, will be the first comprehensive attack on the drinking driver. Law enforcement, judiciary, and mental health officials, and civic groups are all involved in various phases of the project.

In this program, when the offender is arrested, he is sentenced by a judge to a six-month license revocation, fined \$50.00 and enrolled in a D.U.I. re-education school (both

to make him aware of the dangers of mixing alcohol and driving and to determine any possible alcohol problems), from which he must receive a certificate of completion before regaining his license. Restricted licenses will not be issued unless the offender agrees to enroll in the course.

Using information obtained from this program along with proposed legislation for 1974, the Highway Safety Subcommittee may for the first time have the resources to effectively reduce fatalities on Tennessee's highways.

DAVID B. BARRY
Highway Safety Coordinator

* * *

Tennessee Department of Public Health *continued from page 35*

mental Sanitation and Solid Waste Management issued six Commissioner's Orders; The Division of Sanitary Engineering issued 11 Commissioner's Orders; The Division of Water Quality Control issued 29 Commissioner's Orders and initiated 27 court actions. Most of the Commissioner's Orders were issued to Tennessee municipal and industrial dischargers to bring them into compliance with state en-

vironmental standards.

Contracts for equipment and initial operations staff were signed for two of four planned primary care centers. The center for the first Tennessee Comprehensive Health Planning Region will be quartered in the Greene County Health Department and the center for the Northwest Tennessee Comprehensive Health Planning Region will be located at the Reelfoot Rural Ministry Center in Obion County. When fully operative, the centers will provide a physician, dentist, two nurses and clerical staff.

* * *

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The irritations of man's day are often reflected in his gut.

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Lomotil tablets are small, easy to carry and easy to take. They act promptly and effectively. Secondary effects are relatively infrequent and, once the first force of the diarrhea is controlled, maintenance is frequently effective on as little as one fourth of the initial dosage.

These same characteristics make Lomotil useful in controlling the diarrhea associated with gastroenteritis, antibiotic therapy and acute infections.

from the
executive
director

J. E. BALLENTINE

MEDICAL DIGEST

NEWS OF INTEREST TO DOCTORS IN TENNESSEE

1974 TMA MEETING PLANS FINALIZED . . . Four nationally known speakers are confirmed for the 1974 Annual Meeting of TMA. They will address the general session on Friday, April 12 at Gatlinburg. The subject of the scientific program will be "Basic Mechanisms of Disease." Phillip Lieberman, M.D., Memphis, Assistant Professor, Chief, Immunology, University of Tennessee, will speak on "Status Quo-The Basic Immunological Reactions"; John S. Johnson, M.D., La Jolla, California, Scripts Clinic and Research Foundation, will speak on "Things Gone Haywire"; and John L. Ziegler, M.D., National Cancer Institute, Bethesda, Maryland will speak on "The Body's Watchdog-Tumor Surveillance" . . . In addition, Robert B. Hunter, M.D., a member of the Board of Trustees of AMA from Sedro Woolley, Washington, will speak on the subject "PSRO Update." Dr. Hunter is a member of the National Advisory Council for the Professional Standards Review Organization. TMA is fortunate to secure these highly qualified speakers and the presentations in the scientific as well as the socio-economic sector will be of importance to every member. You are urged to attend.

* * * * *

TMA PROFESSIONAL LIABILITY STRONG AND VIABLE PROGRAM . . . This Association's professional liability insurance plan remains one of TMA member's best buys. Underwritten by the Shelby Mutual Insurance Company, Shelby, Ohio, the plan has about 75% of the TMA membership enrolled. Rates are considerably lower than the National Bureau rates for similar coverage in Tennessee, as well as some other insurance companies that require a premium charge over Bureau rates. The chart below shows the savings Tennessee physicians are enjoying compared to the premium under a Bureau company.

100/300 Limits of Coverage

<u>Class</u>	<u>TMA Plan</u>	<u>National Bureau Rate</u>	<u>Other Company Rates</u>
I.	\$132.	\$151.	\$ 235.
II.	232.	265.	411.
III.	409.	467.	705.
IV.	545.	623.	940.
V.	681.	779.	1,175.

The TMA plan is 12½% below so-called Bureau rates and is among the lowest states for premium rates in the United States . . . This savings alone is a major benefit to TMA members.

* * * * *

TMA MEMBERSHIP DUES . . . TMA membership dues will be \$80 in 1974, the same as has been for the past five years. Despite inflation and increased cost of TMA programs, the Association has stayed within the available income as of this date . . . TMA dues are used solely to pro-

vide services to members. Growth in membership, expansion of services, and services to members are among primary activities of the Association. Only three state associations have less dues than TMA; thirty-four states now charge \$100 or more, with a range up to \$200 per member.

* * * * *

1973 ACTS BY GENERAL ASSEMBLY CONCERNING PRESCRIPTIONS . . . Two laws enacted by the 1973 Tennessee General Assembly concerns refilling of prescriptions . . . It is illegal for a pharmacist to refill a prescription unless it is marked to refill. Even though the prescription to all intent and purposes should be refilled from time to time, if it is not so marked, the pharmacist legally cannot refill it. He must obtain an authorization from the physician . . . It is also illegal for a pharmacist to refill a copy obtained from another pharmacy, even though the original prescription is marked to refill. He must contact the physician for authorization, which in practical effect is getting a new prescription . . . The intent of the law is to help curtail the common practice of some individuals in having their prescriptions available for refilling in several pharmacies in a community. It can also alert the physician to the possible misuse of a medication if he should continue to receive a request for a refill authorization for a particular medication for a particular patient. From the self-medication viewpoint, the passing on of a prescription to a friend or relative is made somewhat more difficult.

* * * * *

KNOW YOUR MEDICREDIT FACTS . . . How are your Medigap facts? If you aren't sure, check these facts for answers to questions you may have, or may be asked . . . Medigap is the approved plan of American Medicine. Its purposes are:

- . To give every American under the age of 65 access to high quality care regardless of ability to pay (over 65—Medicare still would apply).

- . To provide comprehensive medical and health protection for both ordinary and catastrophic expenses.

- . To assure choice of physicians flexibility of protection plans (a choice of private health insurance, prepayment insurance, or prepaid group practice plans).

The responsibility for payment would be allocated between the individual and the Federal Government. Using Federal income tax liability as a base, a sliding scale from total government payment of health care needs for the poor to 10 percent of basic plus catastrophic coverage for the financially able.

Provisions of the plan include:

- . Basic coverage of 60 days in hospital or 120 in extended care facilities each twelve months.

- . Catastrophic coverage to take over where basic ends to insure 365 days per year care where required.

- . Unlimited psychiatric care.

- . Accent on preventive care including physician examinations, inoculations, x-ray and lab work, emergency care, dental care for children, emergency dental care for adults, all medical services by physicians and osteopaths.

- . Both inpatient and outpatient care to cover all care customarily provided plus complete diagnostic services.

- . Home health care including home nursing care, therapy, and medical appliances.

- . Ambulance services.

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COMMUNICATIONS • LEGISLATION

HADLEY WILLIAMS, ASSISTANT EXECUTIVE DIRECTOR

AMA HOUSE OF DELEGATES ADOPTS NEW PSRO POLICY . . . The new AMA policy on Professional Standards Review Organizations (PSROs), essentially a compendium of several different policies, is embodied in the final paragraphs of Report EE, adopted by delegates to the Clinical Convention that met in Anaheim, California, December 1-4. The amended portion of the adopted report is as follows:

The AMA affirms the following principles:

1. That the medical profession remains firmly committed to the principle of peer review, under professional direction, and
2. That medical society programs of proven effectiveness should not be dismantled by PSRO implementation, and
3. That the association suggests that each hospital medical staff, working with the local medical society, continue to develop its own peer review, based upon principles of sound medical practice and documentable objective criteria, so as to certify that objective review of quality and utilization does take place; to make these review procedures sufficiently strong as to be unassailable by any outside party or parties; and that the local and state medical societies take all legal steps to resist the intrusion of any third party into the practice of medicine, and
4. That this House of Delegates, as individual physicians and through the Board of Trustees and its Council on Legislation, work to inform the public and legislators as to the potential deleterious effects of this law on the quality, confidentiality, and cost of medical care; and the hope that the Congress in their wisdom will respond by either repeal, modification, or interpretation of rules which will protect the public.

The considered opinion of the House of Delegates is that the best interests of the American people, our patients, would be served by the repeal of the present PSRO legislation. It is also believed that this is consistent with our long-standing policy and opposition to this legislation prior to passage.

The considered opinion of the Board of Trustees and the Council on Medical Service is to recommend to the House of Delegates that the AMA continue to exert its leadership, and support constructive amendments to the PSRO law, coupled with continuation of the effort to develop appropriate rules and regulations.

* * * * *

EFFORTS TO ABOLISH FEE CURBS CONTINUES . . . The AMA has called for a lifting of all controls on physicians through a formal petition filed with the Cost of Living Council. Citing severe discrimination against physicians, the petition contends that the proposed allowable percentage increase in physician fees from 2.5% to 4% "does not effect the

burden of limitation on price increases in the face of rising costs." Concern over the impact upon patient care resulting from the proposed rules for hospitals, particularly the revenue per admission limitation as outlined in Phase IV, was also expressed. Although legal action by the AMA has been ill-advised at the present time, the option remains open if the present appeals now pending before the Cost of Living Council fail.

* * * * *

EMERGENCY TELEPHONE NUMBER 911 SOUGHT NATIONWIDE . . . The AMA along with other organizations is seeking to establish the number 911 as a universal emergency telephone number. This emergency system number is presently in operation in some 250 communities serving about 10% of the U.S. population. In Tennessee, 911 is in service in 42 communities across the state with 5 more scheduled to be added in 1974. Under the system, a call to the number 911, which would be free from pay phones, would reach a community dispatcher who would be able to send the appropriate personnel to the scene of the emergency. The real advantage to the universal number as seen by authorities is that in any locality regardless of the circumstances, no citizen would have difficulty getting into the emergency service system. In an effort to spread this service, the Emergency Medical Services Act of 1973, makes implementation of 911 a requirement for receiving aid.

* * * * *

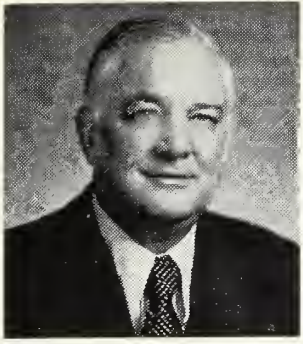
AMA ADOPTS EUTHANASIA GUIDELINES . . . A policy statement on Euthanasia recommended by the Judicial Council has been adopted by the AMA's House of Delegates. The guidelines were accepted after extensive debate during the December Clinical Convention in Anaheim, California. The policy regarding Mercy Killing is as follows:

"The intentional termination of the life of one human being by another—mercy killing—is contrary to that for which the medical profession stands and is contrary to the policy of the American Medical Association."

The House adopted the following guideline regarding death with dignity:

"The cessation of the employment of extraordinary means to prolong the life of the body when there is irrefutable evidence that biological death is imminent is the decision of the patient and/or his immediate family. The advice and judgment of the physician should be freely available to the patient and/or his immediate family."

The Council also recommended that state, county and medical specialty societies encourage and promote discussions of the reciprocal rights and duties of physicians and patients suffering terminal illness. The Council recommended that the House not endorse any particular form to express an individual's wishes which relate prospectively to his final illness, but recognize that individuals have the right to express such wishes. The Council concluded that "physicians may, and indeed should, be encouraged to discuss death and terminal illness with patients. Physicians may, and indeed should, respect expressions of patient's wishes regarding medical care during terminal illness but may, and indeed should, feel free to question those wishes with patient's competent legal representative or by appropriate judicial proceedings when the circumstances of a particular situation seem to require it." Dr. Charles C. Smeltzer of Knoxville is chairman of the AMA Judicial Council.



MORSE KOCHTITZKY

president's page

There exists a serious difference of opinion about Public Law 92-603 as it applies to the establishment of Professional Standards Review Organizations. This legally mandated function requires the concerted professional objectivity of all physicians.

The law is divisive and does not forebode well for the profession. The well informed, concerned physician, capable of making an objective, meaningful determination, is presently under tremendous stress. He recognizes the threat that P. L. 92-603 poses for his profession. Why? Because experience has taught us that the government is a formidable inexorable opponent that uses any means to impose its will on our profession.

PSRO is not just a threat, it is a legal, congressionally enacted reality. Therefore, we in Medicine must use objective rather than subjective reasoning if we are to meet successfully the challenges PSRO requires us to face. With a united determined effort, our capable colleagues in their own locale performing their legally determined PSRO roles can provide a powerful argument for the excellent quality of medical care and for the private practice of medicine. If we do not meet this challenge objectively we play right into the hands of the same government bureaucracy that is presenting us with a Federally controlled, non-medically dominated PSRO. If there is anything less than a united and concerted effort on our part we will have made it much easier for "the bureaucracy" to divide us through their use of the PSRO law.

In the last two sessions of the House of Delegates of the Tennessee Medical Association, resolutions have been adopted directing the course of action to be taken in Tennessee. These actions call for a statewide PSRO organization. Every effort is being and has been made to accomplish this mandate of the House. I call upon you now to carefully consider the well being of the Tennessee Medical Association and the profession as a whole throughout the state. Your Association has established the Tennessee Foundation for Medical Care, Inc., and this statewide organization can provide an atmosphere in Tennessee whereby professional standards review will be a local function, medically and professionally directed, and physician controlled. Anything less than this seems to me to be both personally and professionally unacceptable.

Sincerely,

President

journal

OF THE
TENNESSEE MEDICAL ASSOCIATION
PUBLISHED MONTHLY

DEVOTED TO THE INTERESTS OF THE MEDICAL
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JANUARY, 1974

editorials

PSRO: STOP PRESS! URGENT!

Well, it happened! As most of you know by now, and as was anticipated, HEW gave us ashes and switches for Christmas, disallowing the statewide PSRO under the Tennessee Foundation for Medical Care, and dividing the state into three areas corresponding, by a strange coincidence, to the CHP areas. This decision on the part of HEW will have far reaching consequences as far as the practice of many of you is concerned, particularly those of you who practice in rural areas and who have significant numbers of Medicare/Medicaid patients.

Somehow, as it stands at the moment, the

physicians in each of the designated areas must band together in a formal way to form a PSRO. This will be difficult, time consuming, expensive, and inconvenient, but most of the alternatives will be even more unpalatable. The designation becomes effective January 20, 1974, when appeal will no longer be possible.

First, there is the alternative of non-cooperation. This option is built into the law. One is then freed from the burden of accepting government funds in payment for his services. He may either discharge all his Medicare/Medicaid patients, or treat them free! He will be relieved of an even greater burden in two years, when his office practice comes under PSRO. Presumably before then all third party carriers will have made review by the PSRO mandatory for payment by them, and if we have any form of national health insurance, this will include almost everyone. For practical purposes, therefore, non-cooperation is an avenue not open to us.

A second alternative is to do nothing and leave it to HEW. This is really what they have in mind. Then the Secretary of HEW can designate the CHP area as the PSRO, and you will have the bureaucrats running your practice. The secretary will be all powerful.

There is a third, and by all odds preferable, alternative, which is the repeal of the PSRO sections of PL 92-603. TMA's Board of Trustees is on record as supporting H.R. 9375, the repeal of the PSRO law, submitted by Congressman Rarick of Louisiana. The reason we should be for its repeal is not that we are against peer review and utilization review, but that PL 92-603, as far as its PSRO section is concerned, is a bad law, which will prove to be unwieldy, impractical, and immensely costly. Peer review has always been a way of life for most of us—witness autopsies, tissue committees, death conferences, etc.—but it has not been visible to the public, who are demanding it. We must use all our influence for repeal of the law, but we must also bend all our energies to inaugurating a workable, believable, and visible system of peer review and utilization review.

The urgent matter is to develop in the hospital in which you practice a satisfactory peer review and medical audit program. If this program is adequate, it can function independently, even under the present law. You need to be tied into a computer, and while TUP will work for utili-

zation, it will be of no help for peer review. And unless you are actually reviewing, and taking action, your program will not be acceptable, and you will be reviewed by the PSRO. Whether or not we retain PL 92-603, it is much easier, and less traumatic, to review by noting practice patterns, letting each physician monitor his own practice, than it is to have a committee do it manually and have to take unpleasant action against a colleague (the "GOTCHA" system). This is one reason why your CME committee is pushing PAS/MAP (or any system which has a professional activities study as a part of it, which TUP does not). For more on this, see the following editorial on TAP and PAS/MAP.

Friends, you had best get with it. We have arrived at the place where we are today because most of us have been sitting on our thumbs. Better you should do it last year!

J.B.T.

NEW YEAR'S RESOLUTIONS: What Do We Really Want?

Some radical changes are in the making for our way of life. Some of these could have been predicted—and indeed were, but those predicting them were about as popular as Cassandra or Jeremiah, and were listened to about as much. We have become so accustomed to believing we can have everything we want whenever we want it that to be told differently does violence to our credulity. But that's what's happening, and as we view the energy crisis, the prospect is not pleasant.

I submit, however, that the energy crisis is not the real problem, but that it is the result of a more basic difficulty: the virtual disappearance of statesmanship in our nation, indeed in our world. Statesmanship, along with spiritual absolutes, has been replaced by pragmatism and dialectic materialism. I wish in this editorial to examine some of our present problems, including the energy crisis, in this light. As a nation, and as individuals, we must recognize that in no situation can we have it both ways, and we must decide what we really want.

We have tended to blame the Middle East situation for our present problems, but in actuality we are likely to have an energy crisis whether or not we have Arab oil, the difference being one of degree. In any case, we are faced with some very tough decisions which could

have far reaching consequences health-wise. One solution proposed for our present crisis is that we convert as much as possible from gas to coal, and that we also turn to extraction of oil from oil bearing shale. Gas is a clean-burning fuel, but is in short supply, while coal, though relatively plentiful, generally produces a great deal of air pollution. For increased coal production, strip mining is by far the most efficient process. Most of the oil bearing shale, as well as our vast coal reserves, are in public land reserves in the West, where climatic conditions make land reclamation following mining impossible. Just the rendering of the shale is expensive and requires vast quantities of water. With our inordinate demands for energy, we are likely in either case to leave a West full of moonscapes for our children to enjoy. Do we need all the bright lights, neon signs, and a road full of 300 horsepower behemoths? What do we really want?

In order to sell more fuel, our oil companies have systematically, over the years, suppressed all inventions which would increase the efficiency of our automobile engines. As air pollution increased, anti-smog devices were added, which further vastly increased gasoline consumption. The gasoline shortage has made these devices wasteful in the extreme. We can take them off and choke, or leave them on and cut down on our driving. Or perhaps Detroit might even be influenced to make a more efficient engine. What do we really want?

Turning to other problems, with similar roots, we find that in 1971 President Nixon called for an international effort to end opium production, and the United States forced Turkey, the major illegal supplier, out of the business, helping the U.S. to turn the corner in its war against heroin. But this also shut off the supply of medical opium to ourselves and others, so that a critical shortage of morphine and other medically useful opium alkaloids is developing. What already has developed is an embarrassing international situation with Turkey, and a domestic battle between the law enforcement and medical communities. In fact, warnings from the medical community of resulting serious and undesirable shortages made prior to our international treaty went unheeded.¹

We have made easy abortion a substitute for self discipline, judgment, or restraint of lust, as the case may be, while at the same time more

and more articles are appearing in the medical and lay press on the tragedy of too few babies for adoption. In fact, a thriving black market for babies exists in Connecticut, and doubtless elsewhere.² Do we want babies, or do we not? Is life precious, or is it not? What do we really want?

We can't have it both ways. What do we *really* want? Does our permissive society have the moral stamina to survive in the face of the crises (and I have listed only a few of many) now developing? As we look about us, at mounting crime, at decreasing regard for the rights of others, with the sop to our corporate conscience that we are protecting "the rights of the individual and the minorities," to the detriment, and even destruction, of the majority and of society at large, I must seriously question whether it *should* survive.

What do *you* really want? We as leaders in our various communities and in this state must come to grips with these and other questions confronting us, such as, for example: the right to die with dignity as opposed to the right to live; what constitutes human experimentation; informed consent and what constitutes reasonable disclosure; health care as opposed to medical care; the funding and delivery of medical care. All manner of moral, ethical, and economic problems confront us as doctors and our society generally. It is a cop out to say we are too busy taking care of our patients to think about these things, because all of these things involve the health of the community, and so become our business. It is immoral not to think of them, to arrive at the most informed and responsible opinion possible, and to exert our influence for action in the best interests of the public.

Above all, we must see to it that we count the cost, and not be simply swept along by fickle and pragmatic public opinion—in short that we be statesmen and not politicians. To do so requires a large measure of spiritual resources, another commodity which appears to be already in short, and ever decreasing, supply in our country. Perhaps this is, indeed, our *real* energy crisis.

J.B.T.

REFERENCES

1. *Wall Street Journal*, Nov. 26, 1973; p. 24.
2. Kaplan, RA, and Glass, RH: Adoption In An Infertility Clinic. *Conn Medicine*, 37:563, Nov., 1973.

DAKTAR/DIPLOMAT IN BANGLADESH

Whenever an obviously talented, highly trained doctor "buries himself" in some out of the way place, without adequate facilities, there is an immediate reaction against such a waste of unfulfilled potential. This editorial is about such a man, but I think that by no criteria could his talents and training be said to have been wasted. A well trained surgeon, with an outstanding research record, offered a teaching position almost guaranteed to bring him fame in Academe, Vic Olsen chose to cast his lot with the Great Physician and minister to the needs of the medically deprived people of East Pakistan, now Bangladesh, in an area where no medical facilities of any kind existed. The story of how he came to have Bangladesh entry visa #001 "in recognition of service to our country" (Bangladesh) makes exciting and inspiring reading indeed.

Daktar/Diplomat in Bangladesh is the story of building and of healing. It is the story of the birth and growth of a hospital in the face of incredible odds, and of how it endured unscathed through war and cyclones, and in spite of the machinations of unfriendly officials. It is also the very personal account of the death and rebirth of a nation resulting from a bloody war whose roots were in religious differences, and whose object was genocide. Further, it is the story of a small group of medical personnel—primarily American and Bengali Christians—whose devotion to and love for the people of Bangladesh never wavered, and through whose faith God produced miracles.

But *Daktar* is more than the story of the building of a hospital or even of a country, exciting as that is. It is also the story of the rebuilding of lives by the Master Builder. What induces a man of Vic Olsen's talents and background to leave his home, and endure untold hardships and privations half-way around the world amid an alien race? With the tremendous need in our own country, does it make sense?

It is true that there are medically underserved areas in this country, and sometimes medicine is hard to get. Sometimes people die for lack of medical attention, but this is the unusual case. Our underserved areas are either sparsely populated areas in which the nearest doctor or hospital is 30 minutes or so away, or ghetto areas with several thousand people per physician. It may take time for a patient

to get medicine. If you feel called to serve in these areas, by all means do so.

There are many places in the world, though, where there are hundreds of thousands, even millions of people *completely* without access to a doctor or a hospital. Medicine is unavailable except through the good offices of charitable institutions. The Medical Assistance Program (MAP), which figures large in the book, has sent vast quantities of medicine and medical supplies all over the world, much of it donated by the manufacturers. MAP acts as a clearing house for much of the world's medical supply needs. Why support MAP? The simple answer is that pennies will do in the underserved areas what requires dollars in our affluent society.

Physicians by nature and calling care about the sick. TMA members have served as short term medical missionaries with denominational boards, Brothers' Brother, and the like. Others went with the AMA mission to Viet Nam, and some have gone on cruises with Project Hope. Many support MAP and similar organizations with their money. Why all the fuss about those so far away? This book is one man's answer, and a compelling answer it is.

J.B.T.

Olsen, Viggo B., M.D., F.A.C.S., with Jeanette Lockerbie: *Daktar/Diplomat in Bangladesh*, Moody Press, Chicago, 1974. Cloth. 350 pages—\$5.95. (Dr. Olsen's income from the book goes to the support of Christian Memorial Hospital, Malumghat, Chittagong District, Bangladesh.)

TAP and PAS/MAP Workshops

Last winter TMA and THA jointly conducted a series of seminars designed to acquaint medical personnel with the need for and the workings of systematic review by each hospital staff of its professional activities. Our primary thrust was toward establishing a data base for a program of continuing medical education specifically tailored to meet the needs of the particular staff.

Last spring we were suddenly confronted with PSRO's, and then in the summer hospitals were told to come up with a workable medical audit program, or have payments retroactively denied. Continuing medical education and professional activities got lost in the shuffle. Then Blue Cross came up with its Hospital Utilization Program

(HUP), in Tennessee called TUP, which is a computerized program for, as its name clearly states, hospital utilization only. It has nothing to do with quality of medical care, and is therefore totally useless as a medical education tool.

TMA, through its CME committee and director, has tried to spread the word, but many hospitals have signed up for TUP. It does what the administrators need. But, doctors, it will not do a thing for meeting your needs. PAS/MAP will do both, which is why we seemed to be pushing this particular system. We are for any system which will meet your CME needs. But TUP absolutely will not—it was not designed to.

Next month, on Valentines Day to be precise, the Commission on Professional and Hospital Activities, the parent of PAS/MAP, will conduct a regional workshop in Nashville, details of which are given in the section on CME Opportunities. A number of Tennessee hospitals instituted the PAS/MAP system following our seminars last winter. I hope many of you will come to the workshop and that you will tell those who don't read the editorials so that they too can come. People will be there from PAS/MAP, and from our own subscribing hospitals, to answer your questions.

Then, on the following Saturday and Sunday at the Peabody Hotel in Memphis there will be a Trustees, Administrators, Physicians (TAP) workshop, put on by the Joint Commission on Accreditation of Hospitals. TAP is a two-fold program designed to acquaint the three groups with their responsibilities in both Peer Review (quality of care) and Medical Audit (utilization). It is most urgent that each hospital and medical society in the state be represented at that workshop. TMA is dedicated to that, and your officers and the CME committee will do everything in their power to implement it. It is urgent that you go, in order to learn how to live with, utilize, and function in, a PSRO, because this is what PSRO is all about.

I am afraid that in spite of all of our good intentions, money has become of paramount importance, and that the thing which must be our primary concern, high quality patient care, is being pushed aside. We can't let it happen. But unless *you* do something about it, it will happen, and your patients, and consequently you yourselves, will suffer.

J.B.T.



To the Editor:

I read, with interest, the little squibb in the last number (Oct. 1973) of the *TMAJ* about the first operation in Nashville by a Mr. Robertson on a patient with a large destruction of the scalp.

In the March 1972 another member of your Nashville medical group wrote a similar article in your publication. I wrote him and gave the following information about the first successful results for this same disability. It [The operation] was done by a Dr. Patrick Vance connected with the army at the Forks of the Holston which is now a part of Kingsport. I [enclose a] copy of this historical document. It is not signed but the original copy may have had a signature, which might be found in some of the medical libraries in Nashville.

WILLIAM K. VANCE, M.D.
609 Spruce Street
Bristol, Tennessee 37602

*In the year 1777, there was a Doctor Vance about the Long Island of Holston, who was there attending on the different garrisons, which were embodied on the then frontiers of Holston, to guard the inhabitants against the depredations of the Cherokee Indians. This Doctor Vance came from Augusta County, in Virginia. In March of the same year, Frederick Calvit was badly wounded and nearly the whole of his head skinned. Doctor Vance was sent for, and staid several days with him. The skull bone was quite naked, and begun to turn black in places, and, as Doctor Vance was about to leave Calvit he directed me, as I was stationed in the same fort with him, to bore his skull as it got black, and he bored a few holes himself to show the manner of doing it. I have found that a flat pointed straight awl is the best instrument to bore with, as the skull is thick, and somewhat difficult to penetrate. When the awl is nearly through, this instrument should be more lightly borne upon. The time to quit boring is when a reddish fluid appears on the point of the awl. I bore, first, about one inch apart, and, as the flesh appears to rise in these holes, I bore a number more between the first. The flesh will rise considerably above the skull and sometimes raise a black scale from it, about the thickness of common writing paper. It is well to assist in getting off the scales of bone with the awl. These scales are

*Remarks on the management of the scalped head. By Mr. James Robertson, of Nashville in the State of Tennessee. Communicated to the Editor by Felix Robertson, M.D., of Nashville.

From the *Medical & Physical Journal*, 1806, Part II, Vol. II. Nashville, April 10, 1806, pp. 27-30. Taken from the Draper manuscript, 5x15.

often as large as a dollar, and sometimes even twice as large.

It will take at least two weeks from the time of boring for it to scale. When the scale is taken off at the proper time, all beneath it will appear flesh like what we call proud-flesh, and as if there were no bone under it.

The awl may, at this time, and, indeed, for a considerable length of time, be forced through the flesh to the bone without the patient's feeling it; but after any part has united to that portion of the scalp which has remaining original skin it becomes immediately sensible to the touch.

The scalped head cures very slowly and if this kind of flesh rise in places higher than common, touch it with blue-stone water, dress it once or twice a day, putting a coat of lint over it every time you dress it, with a narrow plaister of ointment.

It skins remarkably slow, generally taking two years to cure up.

In the year 1781, David Hood was shot at this place with several balls and two scalps were taken off his head. & these took off nearly all the skin which had hair on it. I attended him, bored his skull, and removed from almost the whole of his head, such black scales as I have described above. It was three or four years before his head skinned over entirely; but he is now living, and is well.

In 1780, Richard Lancaster and Joe Staines were both wounded, scalped, and left for dead. These persons were under my directions, and their heads were bored as above described. They both got well, in the course of two years.

M. Baldwin and some others were scalped either in 1790 Or 1791. Their skulls I also bored or directed it to be done. They all recovered.

I never knew one that was scalped, and bored as above directed, that did not perfectly recover. There is always part of the scalped head over which but little or no hair afterwards grows.

In 1769, I saw a young man in South Carolina who had been scalped eight years before that time, and about twice the size of a dollar of the bone of his head was then perfectly bare, dry and black. I am persuaded that had his skull, even then, been bored, he might have recovered of the wound which put an end to his life about a year after I saw him, the naked portion of the bone having rotted, or mortified, and exposed the substance of his brain, a very considerable quantity of which issued out at the opening at his death.

Editor's note: Spelling is as it appears in the manuscript.

To the Editor: Much has been said about the shortage of medical care in rural areas of our country, but few effective measures have been found or acted upon. This applies not only to the state of Tennessee but to most of the United States.

I would like to suggest a simple and rather inexpensive way that might improve medical care in scattered and undercared-for regions in the state of Tennessee.

There are in Tennessee various counties, small towns and isolated regions of country where there are no doctors in a radius of 15-25 miles. The reasons for this are varied and rather well-known. Few doctors want to practice where there is no hospital and no consultants and where the income might be lower than in a more prosperous and populated area. Few doctors want to be on call constantly. Wives dislike the isolation from social life and good stores, and possibly having to send their children to inferior schools. The lack of recreation and cultural opportunities is a drawback, as well.

It is a well-known fact, however, that communities now needing doctors will go all out to attract and hold a physician. They might even offer a house, an office, or even a small clinic or hospital. With better roads and other transportation available, the advantages of city life are usually only an hour or two away from a rural physician's family.

For years, it has been the justified belief of educators that if rural areas could obtain the services of a doctor for a few years that many of these would stay on for a lifetime of service. They would either learn to like the area and the people, or they would feel needed and wanted enough to cause them to stay. A great improvement in rural care would be obtained, even if medical men would come and serve only a few years and then could be replaced by other physicians. These, in turn, could be replaced after a few more years of service.

The problem, then, it would seem, is to induce physicians to go to these uncared-for areas in the first place. Some would stay; others could be replaced. I would like to suggest that the Tennessee Medical Association co-operate with the state of Tennessee in the following plan to encourage and sponsor 6 medical students each year for a minimum of 3 years practice in a rural area needing a medical coverage.

My plan would not really be a new one, except for a few ideas not used before. The TMA would announce sponsorship and complete financing for 1 or 2 men or women who would agree to go to a region needing medical help to work for a period of 3 years. They would have a choice of several locations selected by the TMA which would fall in such category. At the same time, the state of Tennessee would likewise sponsor 4 medical students for 4 years with a similar agreement. This would cost the TMA about \$5,000 a year per student, and the state would furnish \$20,000 a year for their 4 students. The cost—really a pittance considering the total state outlay in this day and time.

The students selected would be on the basis of sincerity of purpose, need, and scholarship. They could be selected by a competitive examination or committees, and ideally would be students in their senior year of college who are qualified and deserving, and yet might not be able to attend medical school without full help.

Now, you say, this has been tried before and it hasn't worked. The newly graduated M.D. has welched on his agreement or has borrowed money and paid back the loan and then gone to work in the

city. Others have gone to the country and stayed only a few weeks or months. True, it hasn't worked too well in most cases.

I would like to suggest a few ideas that might make this work. In the first place the selections of sponsored students might be weighted in favor of persons from rural areas who know and like such a location. Second, the student would agree and would sign an iron-clad contract with clauses to see that he or she must fulfill the terms or they would not be granted their license in the state of Tennessee. It could be stipulated that the money would never be repaid if the terms were fulfilled. This would be an incentive. This could, I think, be worked out by legal minds in TMA headquarters and the state legislature. Such a plan has worked in Scandanavian countries and in England during a limited trial. I think it might work here, and I hope it can be given some consideration by the TMA and the governor and the legislature. It would, in 10 years, furnish 50 new M.D.s in areas which now have none. Quite an improvement.

W. RUTLEDGE MILLER, M.D.
215 North Boone St.
Johnson City, Tenn. 37601



TREWHITT, MADISON S., Cleveland, died November 9, 1973, age 62. Graduate of University of Tennessee Medical School, Memphis, 1934. Member of Bradley County Medical Society.



The JOURNAL takes this opportunity to welcome these new members of the Tennessee Medical Association.

CHATTANOOGA-HAMILTON COUNTY MEDICAL SOCIETY

Donald Ross Campbell, M.D., Chattanooga
Larry W. Davis, M.D., Chattanooga
Ronald L. Molloy, M.D., Chattanooga

MEMPHIS-SHELBY COUNTY MEDICAL SOCIETY

Alan D. Samuels, M.D., Memphis
Anthony Segal, M.D., Memphis

NASHVILLE ACADEMY OF MEDICINE

Robert L. Bell, M.D., Nashville
Leroy M. Burton, Jr., M.D., Nashville
James J. Couperus, M.D., Madison
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Henry W. Foster, M.D., Nashville
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 Choon Duck Son, M.D., Madison
 James B. McGehee, M.D., Nashville
 R. G. Satterfield, M.D., Nashville
 Medha Suwanawongse, M.D., Nashville
 T. A. J. Vaughan, M.D., Nashville

programs and news of medical societies

Chattanooga-Hamilton County Medical Society

The Chattanooga-Hamilton County Medical Society has installed new officers for the coming year.

Dr. I. Lee Arnold has been installed as President, and Dr. C. Windom Kimsey is the new President-elect.

Other officers are Dr. Paul E. Hawkins, secretary-treasurer, Dr. Billy Allen, elected to the board of governors, and Dr. Jerome H. Abramson was elected to the board of censors.

national news

THIS MONTH IN WASHINGTON (From Washington Office, AMA)

Two more major national health insurance proposals have been thrown into the Congressional hopper, bringing the total to eight with at least two more waiting in the wings, including that of the Administration.

Chairman Harley O. Staggers (D-W.Va.) of the House Commerce Committee has introduced his own national health insurance proposal (NHI), saying hearings will be held on his bill in the coming year.

The second new NHI proposal came from Senate Republican leader Hugh Scott (R-Pa.) and Charles Percy (R-Ill.).

Staggers' National Comprehensive Health Benefits Act of 1973 would provide comprehensive health care benefits and complete protection against the costs of catastrophic illness to all. It would be financed by a combination of contributions from employers, the federal government and individuals, scaled to income. The federal funds are for health insurance and

catastrophic illness benefits for the poor and near-poor.

The introduction came shortly before hearings on NHI by the Commerce Subcommittee on Public Health and Environment.

It is the first major NHI proposal to be referred to the Interstate and Foreign Commerce Committee rather than the Committee on Ways and Means, Staggers noted, adding that it is the first NHI proposal by a chairman of a major committee in the House.

Major features of the proposal, as described by Staggers:

- a strong role for state governments in the development and administration of the program;
- incentives for the creation and use of Health Maintenance Organizations;
- a six-year transitional period for orderly development;
- the use of existing private health insurance carriers for administration of the insurance provisions;
- and the fact that the program builds, on, rather than federalizing, the existing health care system.

The bill provides that newly created State Health Commissions (SHC's) would be responsible for the actual administration of much of the program, including standard setting and quality control, assisting in the development of Health Maintenance Organizations (HMO's), and administration of some of the insurance provisions. Existing private health insurance carriers would be used to underwrite most of the legislation's insurance benefits. The development and use of HMO's would be encouraged through additional direct developmental assistance and through a ten percent federal subsidy of HMO premiums.

Within two years of enactment all aged, low income and unemployed individuals and families, would be provided coverage for basic health services. Within four years of enactment, all individuals and families would be provided coverage for basic health services and the costs of catastrophic illness. Within seven years of enactment, all individuals and families would be provided coverage for comprehensive health care benefits and the costs of catastrophic illness.

Senator Scott said his two-part "Health Rights Act" would provide for in-patient pro-

tection for all persons suffering major illness, and would set up an out-patient health maintenance insurance plan. It would replace both the medicare and medicaid programs now in effect. Scott added that he believed his bill was "must legislation" for this session of Congress "because its goal is to serve every American at a critical time."

Under the Scott-Percy Health Rights Act, both the in-patient and out-patient plans would be administered by insurance carriers or other public or private agencies on a regional basis, under contract with the newly created Office of Health Care within the Department of Health, Education and Welfare.

The in-patient, "major illness" protection differs from traditional catastrophic plans by covering all costs above each family's health cost ceiling, which is determined by a formula taking into account both family income and family size. Money for the plan would be financed in part through the present health insurance portion of Social Security payroll taxes and in part through general revenues.

The out-patient plan would be financed in part through family premium payments which would be supplemented in whole or part with federal payments for low-income families. Employers could arrange to finance all or part of their employees' premiums.

The Act would also establish a two-year, Presidentially appointed "Health Delivery Committee" to study the current and longrange needs for medical personnel and facilities. It would make recommendations to the President and Congress.

* * *

The American Medical Association has asked the Congress to reject proposed legislation that would restrict the Food and Drug Administration's authority over food supplements.

In testimony before the House Commerce Subcommittee on Health and Environment, C. E. Butterworth, Jr., M.D., Chairman of the AMA's Council on Foods and Nutrition, said the FDA's actions "are based upon sound scientific evidence and are clearly in the public interest."

Under new FDA regulations, U. S. government recommended daily allowances (RDA's) have been established that permit the inclusion of 19 essential vitamins and/or minerals in products to be marketed as dietary supplements.

"The RDA's are based on those formed by the National Academy of Sciences and reflect the most current scientific judgments on the subject," said Dr. Butterworth.

Ingredients with no recognized nutritional value would be excluded from dietary supplements.

"There is no scientifically acceptable evidence to support the use of bioflavonoids, rutin, inositol and other similar ingredients," said the witness. "It is our opinion also that the quantities of vitamins included in mixtures for dietary supplementation should furnish daily an amount which approximately fulfills but does not greatly exceed the recommended dietary allowances," Dr. Butterworth testified. Inclusion of excessive amounts of fat-soluble vitamins A and D can be harmful, and "is scientifically unwarranted and potentially dangerous," he said.

Dr. Butterworth said: "It clearly would not be in the public interest to enact legislation virtually eliminating the authority of the Secretary (HEW) to control the kinds and amounts of ingredients in the dietary supplements and other foods for dietary use. The current regulations promote safety, and provide full information to consumers about such products, and this information will enable them to make decisions based on scientifically acquired data."

* * *

Legislation liberalizing tax treatment of retirement savings by the self-employed seems to be moving closer to congressional enactment in the next Session.

The House Ways and Means Committee has tentatively approved the Senate provision allowing self-employed people such as lawyers, dentists and physicians to claim tax deductions on \$7,500 a year, or 15 percent of income, for sums placed in qualified pension plans. This compares with the previous Keogh limit of \$2,500 or 10 percent of income.

The threat of a strict limitation on pension tax deferments in corporations, including professional service corporations, appears to have diminished. The Ways and Means Committee in general accepted the principle in the Senate bill of a \$75,000 annual limit on retirement benefit plans (so-called defined benefit plans) and on others (defined contribution plans which included profit-sharing, money purchase, etc.) of a retirement benefit not to exceed 100 percent of the high three years of average compensation.

Ways and Means must still take a final vote and also work out with the House Education and Labor Committee an agreement on the form the overall legislation—a sweeping pension reform measure—will take when presented on the House floor. Defeated in Ways and Means was a move by labor, an arch enemy of the Keogh provision, to reduce the tax deferral to a maximum of \$5,000 per year.

* * *

President Nixon is correct in his statement that home temperatures in the mid-60s are, in some ways, healthier than temperatures in the mid-70s, according to William Barclay, M.D., Assistant Executive Vice President for Scientific Affairs, American Medical Association.

“Heating the interior of homes and offices during the winter removes moisture from the air. The higher the temperature, the dryer the air. Air with little moisture aggravates bronchial and other respiratory problems. It can contribute to dry throat and nose, coughs and dry skin.

“The respiratory system doesn’t cope well with the sudden changes in temperature. Moving from an overly warm room into outside cold affects the body adversely, causing coughs and respiratory problems. The body adjusts to temperature changes gradually. We feel the cold more acutely on the first cold day in the fall than in January. We do not adapt well to abrupt temperature changes.

“There are no major health advantages inherent in keeping inside temperature somewhat lower, but there are minor advantages that add to comfort and well being during the winter.”

* * *

President Nixon has signed into law a three-year, \$185 million bill to help set up emergency medical units around the nation.

The bill authorizes grants and contracts for feasibility studies, planning, establishment, operation and expansion of emergency medical systems (EMS) as well as research and training. Rep. Tim Lee Carter, M.D., (R-Ky.) said in House debate it would assist communities throughout the nation to develop and improve their emergency medical services systems and “contribute directly to saving tens of thousands of lives each year.”

President Nixon had criticized the bill in a veto earlier this year, contending that existing federal and state programs are adequate to

handle the problem. The veto led to a major confrontation with Congress last September in which the Administration won when the House failed by a narrow margin to muster the required two-thirds vote.

The bill increases from 50 percent to 75 percent the federal share of grants for emergency programs and earmarks 20 percent of grants for rural areas.

The Administration’s prime objection to the earlier bill was an amendment ordering that all public health service hospitals be kept open. The EMS law does not contain this provision. However the PHS hospitals were kept alive by a rider to a military appropriations bill that was subsequently signed into law.

* * *

The White House has said that it plans to designate enough radio frequencies for emergency medical service to serve the entire country.

Clay T. Whitehead, director of the White House’s Office of Telecommunications Policy, says this will be a vital first step in giving American communities the kind of integrated emergency medical services they need to save thousands of lives a year among persons stricken by heart attacks and strokes or injured in accidents. Many such persons now die because they do not get adequate emergency care before they reach a hospital.

Estimates of the number of lives that could be saved each year if all regions of the country had adequate emergency care systems range from 60,000 to more than 100,000.

Mr. Whitehead noted that a few cities already had efficient systems including two-way communication between ambulance and hospital and radio equipment for sending vital data on the patient’s condition from the scene of the emergency to doctors at a hospital. For most American communities, he said, such arrangements are still nothing more than science fiction.

Dr. Charles C. Edwards, Assistant Secretary for Health in the Department of Health, Education and Welfare, said the department was putting a high priority on efforts to develop an efficient emergency medical system throughout the United States. How much of the effort should be Federal and how much locally initiated is under study, he said.

The Administration plan calls for allocating 38 radio frequencies for emergency medical use throughout the United States. Mr. Whitehead

said 22 were already available, but on a much less standardized basis. Some of the others are now used by the Department of Defense and other Federal agencies. Still others are used for highway callboxes, ski patrols and the like. A few are not allocated.

* * *

The American Medical Association has awarded a plaque to David Kindig, M.D., in recognition of his "outstanding and dedicated service in implementing the goals and objectives of the National Health Service Corps (NHSC)."

Dr. Kindig played a key part in launching the NHSC program of sending PHS physicians into physician-shortage areas where help is requested by the local and state medical societies. In receiving the award, the youthful physician said the cooperation of the AMA and of the nation's local and state medical societies has "been unique and made the program a success."

Presenting the award, at a Washington, D.C. lunch, Richard Palmer, M.D., vice chairman of the AMA Board of Trustees, said the AMA has been firmly behind the NHSC program. He pointed to the AMA's "project USA" program in which the AMA provides physicians to spell PHS physicians who are on vacation or ill.

medical news in tennessee

VU Medical School Names Chair in Diabetes and Metabolism

The Justin and Valere Potter Foundation of Nashville has established the Addison B. Scoville Chair in Diabetes and Metabolism at Vanderbilt University, it was recently announced. Oscar Crofford, M.D., director of Vanderbilt's new Diabetes and Endocrinology Center was named to the new Scoville chair by the university board of trust on October 9.

The chair, named for Addison B. Scoville, Jr., M.D., an eminent Nashville physician and clinical professor of medicine at Vanderbilt, is symbolic of Vanderbilt's recognition of the ongoing contributions made in medical education by clinical faculty, a spokesman said. In addition, the naming of this professorship in Dr. Scoville's honor is particularly significant in that he is an internationally recognized authority in the management of patients with diabetes. Scoville, too, was elected president

of the American Diabetes Association last Spring. [*He is also associate editor of The TMAJ—Ed*]

Dr. Crofford, in addition to his duties as director of the Diabetes and Endocrinology Center, is associate professor of medicine, chief of the division of diabetes and metabolism and associate professor of physiology. He is a cum laude graduate of Vanderbilt, 1952, and earned his M.D. from Vanderbilt in 1955. He interned, then served his residencies at Vanderbilt, following which he was a United States Public Health Service post-doctoral research fellow in clinical physiology at Vanderbilt and at Institut de Biochimie Clinique, University of Geneva, Switzerland. Dr. Crofford earned the Lilly Award of the American Diabetes Association in 1970 "for work in advancing the field of mechanism of insulin action." He is chairman of the Metabolism Study Section, National Institutes of Health.

KILLER—TRAUMA (February 11, 8-9:30 P.M.)

The leading cause of death among Americans under the age of 40, accidents cause approximately 115,000 deaths a year, costing the public more than \$23 billion annually. Accidents on the road, in fires, in the home, on the water, on ski slopes, and elsewhere—and the trauma that ensues—are a major health problem, and the line between life and death is usually drawn by the emergency medical system closest to the accident victim.

Good emergency care treatment of the trauma victim in this country is spotty, a fact recognized by the American College of Surgeons which has a major program on trauma, and recently a group known as the American College of Emergency Physicians has been formed.

Trauma care requires an area-wide system with cooperation among city officials, hospital staffs, police departments, fire stations and citizens, as well as physicians. A few such systems are already proving successful—in Baltimore, Md., Jacksonville, Fla., and throughout the state of Illinois.

However, many more systems need to be put into effect. There is no other medical area where the combination of medical skills, political commitment and community involvement is more closely bound. In the Trauma show of "The Killers," new techniques developed to

handle trauma, new institutions created to bring care to its victims, and new community action programs working to improve care are among the subjects to be covered.

See October 1973 issue of the JOURNAL for programming details and a list of channels carrying this series.—Ed.

personal news

DR. H. A. BLAKE, Knoxville, has been elected President of the Knoxville Academy of Surgery.

DR. JOHN W. CAMPBELL, Knoxville, has been elected Chief of Staff at the East Tennessee Children's Hospital. Also, elected Chief Elect was DR. NORMA WALKER.

DR. C. ROBERT CLARK, Chattanooga, has been appointed to the Advisory Committee of the Medic Alert Foundation International.

DR. JAMES W. DAVIS, Chattanooga, has been elected to the American Association of Plastic Surgeons.

DR. H. EDWARD GARRETT, Memphis, has been elected Chief of Staff at the Baptist Hospital. Also, elected President of the Medical Staff was DR. ROBERT P. MCBURNEY.

DR. RALPH S. HAMILTON, Memphis, has been elected Chairman of the Section on Ophthalmology of the Southern Medical Association.

DR. ROBERT LASH, Knoxville, has been named Tennessee's Foremost Family Physician for 1974 by the Tennessee Academy of Family Physicians at its recent meeting in Gatlinburg.

DR. STEWART LAWWILL, JR., Chattanooga, was named Boss-of-the-Year recently by the Chattanooga Chapter of the American Association of Medical Assistants.

DR. CHARLES D. McDONALD, Chattanooga, has been elected to Fellowship in the American College of Cardiology.

DR. EDWIN K. PROVOST, Columbia, was honored by the Maury County Medical Society recently upon his retirement after 36 years of medical practice in Columbia.

DR. ROBERT L. RICHARDSON, Memphis, has been installed as President of the Faculty Senate at the University of Tennessee Medical Units.

announcements

CALENDAR OF MEETINGS

STATE

1974

Jan. 18-19 Tennessee Regional Meetings, American College of Physicians, Holiday Inn Vanderbilt, Nashville, Tenn.

NATIONAL

1974

Jan. 19-23 American Academy of Allergy, Americana, Bal Harbour, Fla.

Jan. 19-24 American Academy of Orthopaedic Surgeons, Fairmont Hotel and Convention Center, Dallas.

Jan. 25-27 Southern Radiological Conference, Grand Hotel, Point Clear, Ala.

Jan. 28-30 Society of Thoracic Surgeons, Century Plaza, Los Angeles

Feb. 10-16 American Society of Contemporary Medicine and Surgery, Fontainebleau Hotel, Miami Beach, Fla.

Feb. 11-14 American College of Cardiology, Hilton and Americana, New York

Feb. 15-21 Thirteenth Congress of the Pan-Pacific Surgical Association, Hilton Hawaiian Village Hotel, Honolulu, Hawaii

Feb. 21-23 Seventeenth Congress on Administration, American College of Hospital Administrators, Palmer House, Chicago

Feb. 28 & March 1 38th International Medical Assembly of Southwest Texas, El Tropicano Motor Hotel, San Antonio

March 1-8 American Society of Clinical Pathologists, Los Angeles Hilton, Biltmore, and Convention Center, Los Angeles

March 8-10 AMA-AMPAC Public Affairs Workshop, Washington-Hilton Hotel, Washington, D.C.

March 9-16 International Academy of Pathology, San Francisco Hilton, San Francisco

March 25-27 American College of Surgeons, Houston

March 27 American Society of Clinical Oncology, Rice Hotel, Houston

March 29-April 3 American Society of Abdominal Surgeons, Caesar's Palace, Las Vegas, Nev.



continuing education opportunities

The continuing medical education accreditation program of TMA, has full approval by AMA's Council on Medical Education. If the continuing medical education program of your hospital or medical society is accredited by TMA's committee, you may receive for your attendance at its functions Category 1 credit for the AMA Physician's Recognition Award. If you wish information as to how your hospital or society may receive accreditation, write: Director of Continuing Medical Education, Tennessee Medical Association, 112 Louise Avenue, Nashville, Tennessee 37203.

Medical College of Georgia CME Courses

Date	Title, Location
1974	
February 6-8	Basic Electrocardiography, Medical College of Georgia, Augusta, Ga.
February 7	Medicine and Religion, Medical College of Georgia, Augusta, Ga.
February 14-15	Neurology in Adults and Children, Medical College of Georgia, Augusta, Ga.
March 21-23	Geriatric Problems in Family Practice, Medical College of Georgia, Augusta, Ga.
March 28-29	Gastroenterology, The Atlanta Marriott, Atlanta, Ga.
June 13-15	Internal Medicine, Buccaneer Motor Lodge, Jekyll Island, Ga.

American College of Physicians Regional Meetings, Postgraduate Courses

The ACP's one-to-three day Regional Meetings are designed to help practicing internists (and physicians in related specialties) keep abreast of new developments on the basic sciences and clinical medicine. They bring new advances in medical research from major research centers to local internists not able to travel to medical meetings outside of their own state and also provide a means for practitioners in the region to report to their colleagues on investigative work and clinical experiences of their own.

Averaging two-to-three days in duration, the ACP Postgraduate Courses provide opportunities for in-

depth study of a wide range of subjects of importance to practicing physicians.

Tennessee Regional Meeting, Jan. 18-19, 1974, Holiday Inn-Vanderbilt, Nashville, Tenn. INFO: Gerald I. Plitman, M.D., 1734 Madison Ave., Memphis, Tenn. 38104

Mississippi-Louisiana Regional Meeting, Feb. 15-16, 1974, Broadwater Beach Hotel, Biloxi, Miss. INFO: Guy D. Campbell, M.D., Veterans Administration Hospital, 1500 E. Woodrow Wilson Ave., Jackson, Miss. 39216

Alabama Regional Meeting, May 10-12, 1974, Point Clear, Alabama. INFO: Alwyn A. Shugerman, M.D., 1815 11th Ave., S., Birmingham, Ala. 35205

Network for Continuing Medical Education Schedule of Upcoming NCME Programs

Jan. 14-
Jan. 27
DIAGNOSING THE INFLAMED BOWEL, with Marvin M. Schuster, Director of Gastroenterology, Baltimore City Hospitals, and Associate Professor of Medicine, Assistant Professor of Psychiatry at Johns Hopkins University School of Medicine, Baltimore, Maryland.

FAILURE TO THRIVE, with Aaron R. Rausen, M.D., Director of Pediatrics at Beth Israel Medical Center, and Professor of Pediatrics, Mount Sinai Medical Center, New York.

PRIMARY TREATMENT OF SOFT TISSUE INJURIES, with Ronald B. Berggren, M.D., Professor and Director of the Plastic Surgery Division, Ohio State University College of Medicine, Columbus, Ohio.

Jan. 28-
Feb. 10
THE CASE OF THE TINGLING HAND, with Frank M. Howard, M.D., Associate Professor of Neurology, Mayo Medical School, Rochester, Minnesota.
MONONUCLEOSIS IN THE CLINIC AND THE LAB, with James C. Niederman, Associate Clinical Professor of Epidemiology and Medicine, Yale University School of Medicine, New Haven, Connecticut.

MANAGEMENT TIPS FOR SOFT TISSUE INJURIES IN CHILDREN, with Thomas S. Morse, M.D., Associate Professor of Surgery, Ohio State University College of Medicine, Columbus, Ohio.

For more information about NCME, write the Network for Continuing Medical Education, 15 Columbus Circle, New York, New York 10023.

The University of Tennessee College of Medicine Schedule of Continuing Education Courses, 1974

Feb. 25-27	Recent Advances in Pulmonary Disease, Memphis
Mar. 3-8	Fundamentals of Otolaryngology, Memphis
Mar. 14-16	Fluctuant Hearing Loss, Memphis
Mar. 17-20	Principles of Rhinoplasty, Memphis
Mar. 25-30	Review Course, Memphis
Apr. 6-7	Pediatric Anesthesia, Memphis
Apr. 18-19	Leigh Buring Conference on Exceptional Children, Memphis
Apr. 29-30	Emergency Room Care, Memphis
May 10-12	Fundamentals of Clinical Otolaryngology, Memphis
May 15-18	Clinical EKG, Paris, Tenn.
May 20-24	Intensive Review of the Science of Anesthesiology, Memphis

Vanderbilt University CME Course Listings

1974

3rd Annual Dragstedt Surgery Symposium and Edwards Memorial Lecture Jan. 25-26
High Risk Pregnancy and Newborn Care March
Venereal Disease: A New Look at Treatment
 Tenn. Dept. of Public Health; U. of Tennessee;
 Meharry Medical College March 16
Diabetes: 1974 April
13th Annual Seminar in Psychiatry
 Central State Psychiatric Hospital; Tenn. Dept.
 of Mental Health; Meharry Medical College ... May
 For further information contact:
 Paul E. Slaton, M.D., Director
 or
 Marilyn Short, Administrative Associate
 Vanderbilt Continuing Education
 1100 Baker Bldg., 110 21st Avenue South
 Nashville, Tennessee 37203 Tel. 615-322-2716

Clinical Training Program For Practicing Physicians

Opportunities for advanced clinical education for physicians in family practice and in various subspecialties have been developed by the School of Medicine and the Division of Continuing Education of Vanderbilt University. The practicing physician, with the guidance of the participating department chairman, can plan an individualized program of one to four weeks to meet recognized needs and interests. The experience will include contact with patients, discussion with clinical and academic faculty, conferences, ward rounds, learning individual procedures, observing new surgical techniques, and access to excellent library resources. Experience in more than one discipline may be included.

Participating Departments and Divisions

Anesthesiology Bradley E. Smith, M.D.

Medicine Grant W. Liddle, M.D.
 Cardiology Gottlieb C. Friesinger, III, M.D.
 Chest Diseases James D. Snell, M.D.
 Dermatology Robert N. Buchanan, Jr., M.D.
 Endocrinology & Diabetes .. Grant W. Liddle, M.D.
 Gastroenterology Steven Schenker, M.D.
 Hematology Robert C. Hartmann, M.D.
 Infectious Diseases Zell A. McGee, M.D.
 Renal Diseases H. Earl Ginn, M.D.
 Clinical Pharmacology John A. Oates, M.D.
 Neurology Gerald M. Fenichel, M.D.
 Obstetrics & Gynecology Paul W. Griffin, M.D.
 Pathology Virgil S. LeQuire, M.D.
 Pediatrics David T. Karzon, M.D.
 Psychiatry Marc H. Hollender, M.D.
 Radiology John R. Amberg, M.D.
 Surgery
 General H. William Scott, Jr., M.D.
 Neurological William F. Meacham, M.D.
 Ophthalmology James H. Elliott, M.D.
 Oral H. David Hall, D.M.D.
 Pediatric James A. O'Neill, M.D.
 Plastic John B. Lynch, M.D.
 Thoracic & Cardiac Harvey W. Bender, M.D.
 Urology Robert K. Rhamy, M.D.
 Cancer Chemotherapy .. Vernon H. Reynolds, M.D.

ELIGIBILITY: All licensed physicians are eligible.

ADMINISTRATIVE FEE: \$200.00 per week.

CREDIT: American Medical Association Physicians Recognition Award and American Academy of Family Physicians Continuing Education accreditation.

APPLICATION: For further information and application, contact:

Paul E. Slaton, M.D., Director, Continuing Education
 1100 Baker Bldg., 110 21st Avenue South
 Nashville, Tenn. 37203 Tel. 615-322-2716

Current Obstetric and Gynecologic Practice

Department of Obstetrics and Gynecology

The University of Texas Medical School at San Antonio

Postgraduate Course—January 24-30, 1974

The course, given in 3 parts, is designed primarily as an aid to candidates for the American Board examination, but will be useful to practicing physicians who desire a resume of modern clinical practices in obstetrics and gynecology.

Part I—Gynecologic Pathophysiology and Oncology.

Part II—Gynecologic Endocrinology and Genetics.

Part III—Obstetrical Pathophysiology.

The \$250 enrollment fee includes a study set of 35mm Kodachrome slides, furnished to each registrant for home study in advance of the course, and cocktails and dinner on Saturday night, January 26.

The course will be limited to 150 students. Registration must be made by December 1, 1973. For further details and to register, write to C. J. Pauerstein, M.D., Dept. Ob-Gyn, the University of Texas Medical School at San Antonio, 7703 Floyd Curl Drive, San Antonio, Texas 78284.

**American College of Chest Physicians
Postgraduate Programs, 1974**

The ACCP in co-sponsorship with leading medical schools and teaching hospitals offer physicians and surgeons a continuing education program specializing in the diagnosis and treatment of heart and lung diseases. The continuing education program for physicians sponsored by the American College of Chest Physicians has been accredited by the Council on Medical Education of the American Medical Association and is acceptable for credit toward the AMA Physician's Recognition Award.

For further information contact: Bradford W. Claxton, M. Ed., Director of Continuing Education, American College of Chest Physicians, 112 East Chestnut Street, Chicago, Illinois 60611.

- Jan. 22-24—"Pediatric Pulmonary Course," New Orleans, Louisiana
- Jan. 30-Feb. 1—"Practical Clinical Pulmonary Physiology," Cleveland, Ohio
- Feb. 4-8—"The Lung—Young and Old," Snowmass, Aspen, Colorado
- Feb. 25-Mar. 1—"Problems in Clinical Cardiology," Miami Beach, Florida
- Mar. 4-6—"Respiratory Care in Shock Syndromes" (With a Special Session on Underwater Pulmonary Problems), Honolulu, Hawaii
- Mar. 27-29—"Office Management of Respiratory Disease," Las Vegas, Nevada
- Apr. 3, 4—"Advances in the Management of Acquired Heart Disease," Playboy Club Hotel, Great Gorge, N.J.
- May 23, 24—"Critical Care Medicine—The Nurse, The Therapist, The Physician," Denver, Colorado

Symposium on Bone and Joint Radiology

The Departments of Diagnostic Radiology and Orthopaedic Surgery at the University of Kentucky Medical Center, Lexington, Kentucky, will conduct a symposium on Bone and Joint Radiology from May 1-3, 1974, immediately preceding the 100th Renewal of the Kentucky Derby. In the morning sessions a distinguished guest faculty will analyze radiographs of selected unknown cases that demonstrate differential diagnostic features of various types of bone and joint pathology. Each registrant will be sent copies of the radiographs of each case prior to the meeting. Afternoon sessions will be devoted to informal discussions between small groups of registrants and a member of the guest faculty.

For further details and an application form, write:
Ronald D. Hamilton, M.D.
Director, Continuing Education
College of Medicine
University of Kentucky
Lexington, Kentucky 40506

PAS/MAP WORKSHOP

- The workshop emphasizes
- Medical Audit Studies-directed practice seminars
 - Quality of Care Assessment and Improvement—(PSRO, JCAH, QAP)
 - Utilization Review—extended duration and retrospective (medical care evaluation studies)
 - Demonstration of techniques for using the PAS system reports
 - Applications to PSRO portion of PL 92-603

The workshop does *not* teach coding, abstracting or details of data processing.

- Who should attend?
- Physicians
 - Hospital Administrators
 - Hospital Trustees
 - Chief, Medical Record Department
 - Health Record Analysts
 - Health Organization Representatives

A hospital team should include one or more physicians, administrators, health record analysts, and the chief of the medical record department.

- Registration Fee (per person)
- PAS Hospital\$40.00
 - Non-PAS Hospital or Organization\$55.00
- Fee includes all study materials and luncheon.

- The Program
- PSRO and the Hospital's Quality Control
 - How to Do Medical Audit Studies
 - Display of Practice Demonstration
 - PSRO Legislation and Utilization Review
 - Laboratory Sessions in Applications of Data
 - CPHA Resources to Help Hospitals and PSROs
- Fully approved by AMA Council on Continuing Medical Education. Attendance applies toward AMA Physician's Recognition Award (Category 1).*
- Acceptable for elective hours from the American Academy of Family Physicians, American College of General Practitioners in Osteopathic Medicine and Surgery (Class 2), and College of Family Physicians of Canada.*

- Time and Location
- 9:00 a.m.-4:00 p.m.
 - Registration—8:30 a.m.
 - Thursday, 14 February 1974
 - Hilton Airport Inn, Nashville, Tenn.
 - 1 International Plaza
 - Phone: (615) 244-5472

**Symposium on the Recent Advances
In the Practical Management
Of Allergic Diseases**

A 3-day symposium will be held for the general medical community at a resort hotel this spring, with outstanding specialists in the field of allergy as featured speakers. A golf and tennis tournament will be held in conjunction with this symposium. Please contact:
Claude A. Frazier, M.D.
4-C Doctors' Park
Asheville, NC 28801

"Practical Clinical Pulmonary Physiology"

The course will be held at Case Western Reserve University School of Medicine—Auditorium, January 30-February 1, 1974 in Cleveland, Ohio. Sponsored by the American College of Chest Physicians, Northern Ohio Lung Association, Case Western Reserve University School of Medicine, Ohio Lung Association and the American Thoracic Society. Registration fees are: ACCP, ATS members, \$100; non-members, \$125; residents, \$50.

A thorough investigation of blood gases and respiratory insufficiency will be presented. Emphasis will be placed on practical approaches to common problems especially as they can be dealt with in the community hospital setting.

For registration information contact: Bradford W. Claxton, M.Ed., Director of Continuing Education, American College of Chest Physicians, 112 East Chestnut St., Chicago, Illinois 60611.

Fluctuant Hearing Loss Symposium

The University of Tennessee College of Medicine, Department of Otolaryngology and Maxillofacial Surgery, announces the first symposium on Fluctuant Hearing Loss, March 14, 15, and 16, 1974.

The purpose of this Symposium will be to define Fluctuant Hearing Loss, including sudden hearing loss, to document what is known about the causes of Fluctuant Hearing Loss, with the aim of agreeing upon a more rational method of treatment.

There will be lectures and group discussion open to the audience.

The Symposium will be held in Wassell Randolph Student Alumni Center, 800 Madison Avenue, Memphis, Tennessee, beginning at 9:00 A.M. and concluding at 5:00 P.M. each day.

For information write: Division of Continuing Education and Conferences, The University of Tennessee Medical Units, 800 Madison Ave., Memphis, Tennessee 38163.

Pediatrics Postgraduate Course

The 23rd Annual Postgraduate Course in Pediatrics of The University of Texas Medical Branch will be held in Galveston, Texas, March 14 and 15, 1974. The course will be entitled "Pediatric Potpourri."

This program is acceptable for 12 prescribed hours by the American Academy of General Practice and registration fee will be \$75.00. Further information will be furnished by Lillian H. Lockhart, M.D., Chairman, Pediatric Postgraduate Committee, The University of Texas Medical Branch, Galveston, Texas 77550.

Advanced Continuing Education Workshop—"Plastic Surgery Of the Aging Face"

The Department of Otolaryngology, Abraham Lincoln School of Medicine of the University of Illinois (in cooperation with the American Academy of Facial Plastic and Reconstructive Surgery, Inc.) will present a multidisciplinary workshop in facial plastic surgery June 1 through 5, 1974. M. Eugene Tardy, Jr., M.D., is the chairman of the five-day workshop.

The course will provide participants an opportunity to enhance and refine their knowledge and diagnostic skills in analyzing, evaluating and managing patients presenting problems of facial aging. Topics for consideration include blepharoplasty, dermabrasion, face-lift, browlift, chemexfoliation, local pedicle flaps and scar camouflage. Live and videotaped television coverage of surgical techniques will be offered in addition to panel discussions by the distinguished local and national faculty members.

Interested physicians should write to the Department of Otolaryngology, Eye and Ear Infirmary, 1855 West Taylor Street, Chicago, Illinois 60612.

Course in Laryngology and Bronchoesophagology

The Department of Otolaryngology, Abraham Lincoln School of Medicine of the University of Illinois and the Eye and Ear Infirmary of the University of Illinois Hospital, will conduct a continuing education course in Laryngology and Bronchoesophagology March 18 to 23, 1974. The course is limited to twenty physicians and will be under the direction of Paul H. Holinger, M.D. It will be held largely at the Eye and Ear Infirmary, 1855 West Taylor Street, Chicago, and will include visits to a number of other Chicago hospitals. Instruction will be provided by means of animal demonstrations and practice in bronchoscopy and esophagoscopy, diagnostic and surgical clinics, as well as didactic lectures.

Interested physicians will please write directly to the Department of Otolaryngology, Eye and Ear Infirmary, 1855 West Taylor Street, Chicago, Illinois 60612.

Electroencephalography Course

The ninth annual continuation course in "Current Practice of Clinical Electroencephalography," sponsored by the American Electroencephalographic Society, will be held in Seattle, Washington on July 22-24, 1974. The course is approved by the AMA Council on Medical Education. Further information may be obtained from the course director, Donald W. Klass, M.D., Mayo Clinic, Rochester, Minnesota 55901.



**special
item**

Socialized Doctors Have Socialized Patients*

THE HONORABLE RONALD REAGAN
Governor of the State of California

Tradition calls for a speaker to establish some kind of bond or connection with those whom he addresses. Therefore I've reminded myself of a man who was a first class hypochondriac, a chronic complainer, who told a friend one day he had changed doctors. He said the new doctor discovered that his problem is a deficiency in iron. "He has me on iron tablets every day," the man told his friend, "a shot once a week and an intravenous injection of iron once each month." His friend asked "Are you feeling better?" He answered, "Only when I'm facing north."

But among the hazards, or perhaps I should say the occupational discomforts, of your profession is the assumption by some of us among the laity, that you find our description of our aches and pains entertaining social chitchat. I know that if one of us is introduced to one of you, whether it is at a cocktail party, a soiree or on the street, that title before your name usually guarantees that the weather, religion, politics, or even sex will not become the subject of conversation. We had a fellow in the industry I used to be in, show business, the late Moss Hart. Moss was particularly addicted to that sort of drawing room diagnosis. He couldn't be introduced to a doctor without going into something about a low back pain. One day, at a cocktail party, he was introduced to a Dr. Jones and immediately started to say, "I've been having a pain," and his friend said, "Moss, please, Dr. Jones is a doctor of economics." Moss wasn't stopped for a second, "I bought some stock the other day."

Well, doctors, I have this pain, most of the time it is a little lower down than the one that Moss Hart complained about. My health problem has symptoms that consist of feeling

... a feeling that I'm losing my personal freedom. The growth of regimentation today and the increasing restriction of freedom of choice are getting to be more than I can bear. Actually this ailment isn't confined to me, it's getting quite commonplace. It is endemic in a number of other countries, and the reason I've chosen to speak to you about it is because the virus, I'm afraid, has its incubus in your profession. It's a viral disorder that cannot be localized, and once it settles on the doctors, it settles on the patients, all of us.

The first symptom of this disease is an excess of rhetoric about the need to provide more and better health care for the poor. This spreads rapidly because virtually all of us are committed to the belief that no one should be denied medical care because of an inability to pay. We've always felt that way, and yet a great many of us seem to have forgotten that in an earlier day of not too long ago, the medical profession met that problem on an individual basis with no help from government, and with very little talk from social planners about a crisis in "the health delivery system." Doctors carried patients on the books with no thought of ever collecting from them and without any embarrassing reference to their charity status.

It is probably true that such a system has become outmoded by the increase in urbanization and the complexities of modern living, and that we do need a more orderly and comprehensive process. The real question is, who is best equipped to evolve such a process and to supervise its operation? Simple common sense would indicate a rather obvious answer. But we'd be overlooking that virus and what its effects have been on rational thinking. We're already in the advanced stages where we find ourselves going along with the idea that we're confronted with a health care crisis which, if we don't do something soon, will become an instant disaster requiring immediate government intervention. Certain politicians spell crisis with a capital V for votes and they're swept along by organizations such as MCHR, the Medical Committee for Human Rights. Some day it would be nice to read about CHR, a Committee for Human Responsibilities.

Only the most naive could look at MCHR and its disciples without realizing they have more on their minds than just improved medical care for the poor. According to them, you're supposed to be out on the picket lines, leading a

*An address delivered by Governor Reagan, October 5 in San Francisco, during the Clinical Congress of the American College of Surgeons.

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campaign against malnutrition, or for ending the war in Vietnam, and because you aren't, you, and more recently, the AMA, are referred to by these people as the dinosaurs of the medical industrial complex.

Strangely enough we've gone along with the idea that there is a health care crisis simply because we've heard it so much, and we find ourselves discussing the cure without even asking for proof that such a crisis really exists. We're told that we can only be saved by government control of medicine and instead of disputing this, we find ourselves arguing not whether this is good or bad, but how much or how little is needed.

I'm sure you all know of the recent poll that found that a great majority of people believe there is a health care crisis, that doctors are too few, that medical care is not easily available on short notice, and so on. But what isn't so widely told, is that in the same poll, all of those who believed this said that of course, it wasn't true of them personally. They had no complaint about their doctor, their care or his accessibility.

In recent years, the increase in the number of doctors in the United States has been three times the increase in population. In 1960, there was 1 doctor for every 712 of us, today it's 1 for every 630. This is a doctor-patient ratio better than in any major country in the world, and far better in proportion to the amount of government supervision of medicine existing in those countries.

It is true that here in the United States, doctors are not evenly distributed, but that raises the question of whether there is any available standard for determining how many doctors are enough. The ratio in South Dakota is less than half the national average, but there's very little difference in the health of the people in South Dakota as compared to the other states. Part of the crisis, we are told, has to do with the cost of passing the threshold for entry into the mainstream of health care and the increasing number of people who can't afford to take that step. Here again, facts are at odds with current mythology. Physicians' fees have increased, but only parallel to, and even somewhat behind, the increase in all other types of income. Now I know that if I made that remark to a consumer's group, there would be some raised eyebrows and maybe some talking back. A lot of people who have had a recent illness, feel a

little bit at times like that fighter who was in the ring trying to get away from his opponent. He was back-pedaling around the ring and everytime he passed his corner, his second would say, "Stay in there, he can't hurt us." About the third time he went by the corner, he turned to the second and he said, "Well, keep your eye on the referee, because somebody in here is kicking hell out of me."

Much of the increased cost of medicine is in reality caused by the increased cost of hospitalization, and much of that reflects an increased payroll in an attempt to keep up with inflation. Payroll averages 60 percent or better of hospital costs. Another factor is the complete distortion of supply and demand brought about by Medicare and Medicaid.

Those who claim they have the answer—and that it must be government run medicine—must subscribe to the theory that only those who created the mess in the first place are qualified to clean it up.

Doctors' fees are less than 20 percent of the cost of health care; hospitals are almost 40 percent. I recently stated to another audience that the free enterprise system in America is for the second time in this century being subjected to an all-out attack. It isn't important to establish whether the assault on private medicine is part of that attack or not; it is true, however, that we find so many going outside their own field of expertise in both the attacks on private enterprise and the attack on private medicine. A Harvard economics professor calls medicine in America a failure. Labor leaders join a young senator from Massachusetts and demand \$77 billion worth of cradle-to-grave Teddycare.

Fortune magazine states, "Whether poor or not, most Americans are badly served by an obsolete, over-strained medical system. The management of medical care has become too important to leave to doctors." You wonder just what size print *Fortune* would use to respond to the attack if you passed a resolution here today suggesting that publishing has become too important to leave to publishers, editors, and writers.

I'm not going to belabor you with voluminous facts and figures which you already know about the shortcomings of government medicine, wherever in the world it's practiced, compared to medicine here, in this last stronghold on earth of private practice of medicine. We are one of the few countries in the world where the ratio

of doctors to patients is increasing. New medical schools are in the process of planning and building. In three years, we'll be turning out an additional 1,000 doctors a year. In 1960-61, 8,550 first year medical students were accepted. Eleven years later, the number had increased to 12,360, and it is estimated that in another three years it will increase to 15,000. Total enrollment in 1970-71 was 40,487. Last year, and for the past several years, black, female, and other minority enrollment has increased significantly. I don't know of any other country in the world that has continued to add new hospitals even to the point where we now have a surplus of hospital beds. Ninety-eight percent of all the babies born in America are born in hospitals under a doctor's care. In most countries where medicine has been socialized, the trend is to allow hospitalization and an attending doctor only if it is a firstborn or if trouble is anticipated.

Today, we live in a time and a place where longtime tradition, accepted methods and planning are subjected to research and study. We run them through computers to see if their continued use can be justified, whether they are practical, and whether they are doing the good that we always thought they did. And yet there is more factual evidence available today regarding the relative merits of government vs. private medicine than there is on any other major issue in the world. Yet we ignore these facts to engage in a highly emotional debate instead of comparing these facts.

Does anyone suggest that government's record in its forays into farming, housing, and the solution to the poverty problem recommends government as successor to the family doctor. Government doesn't solve problems; it subsidizes them.

Medicine in the United States has reached a level unequaled by any other place in the world. In a single lifetime we have literally wiped out scores of diseases that have plagued man for centuries. In any country where it has been nationalized, medicine cannot begin to compare with our private system either in quality or in quantity. Within our own country, we have three major governmental medical programs. We don't have to go outside to compare the facts.

The Veterans Administration, Medicare, and Medicaid, which in California we have named Medi-Cal, all are more expensive than the health care provided by individuals for themselves,

through their own direct payment or by way of insurance. Hospitalization for comparable illnesses as well as postoperative care is much longer for patients in the government programs than it is for private patients. The per-patient cost is almost double what it is for the private-practice patient.

I think it is safe to say that the VA is probably the most expensive medical program in the world today. I'm not proposing that we eliminate our responsibility to any of the three groups that are covered by these programs. Certainly we owe an eternal debt to the men who suffered by reason of their defense of our freedom. Medicare recognizes the need to care for those beyond their earning years who must live on an inflation-eroded fixed income, and Medicaid is the direct answer to the problem of the poor. However, I do submit we can do better in all three for the patient, for the taxpayer, and for the doctor.

In my opening remarks, I indicated that the problem I would discuss with you was one affecting me. Please accept me as symbolic of all who fear government's continued encroachment on freedom. Socialization of medicine has not only failed to solve health care problems where it's been tried, it has been the first step to socializing the political and economic system of a country. You can't socialize the doctors without eventually socializing the patients. My plea to you is that you must not subscribe to the theory of inevitability. This idea that mankind would give up and fight only a rear-guard action in a stall for a little more time was Karl Marx's secret weapon. If you won't lead in the resistance, you who have the most to lose, how can the rest of us, the patients, hold out?

Why haven't you based your first line of defense on the simple and obvious question that would be so easy for every working man and woman to understand whatever their trade or profession, and that question is: By what right in this country can a government tell the men and women of any profession that in order to practice their art they have to become government employees?

I know how the artists and craftsmen in my previous line of work would react if government proposed this to them. Try it on newscasters and reporters sometime, on construction workers and on farmers. I would add lawyers, but I've been a little worried about them lately.

If we do not believe that we should coerce

physicians, plumbers, or economists to live and work where some bureau in government has decreed they must, if we do believe that our health care problems can best be met by targeting-in on particular troubles, rather than by violently remaking the entire system, then let us agree that something is needed beyond just maintaining the status quo.

We have a pluralistic system at present. It's a logical outcrop of our American dream. We have fee for service by individuals or by groups in the tradition of free enterprise. We have clinics and prepayment and government medicine all existing in a comfortable competition.

We who are gathered here are probably unanimous in our agreement that freedom of choice is one of the most essential components in this pluralistic medical system. We have proved over the years that the one-to-one relationship between patient and doctor is best for the patient, that some of the ills that affect the system, because doctors and patients are after all human, can best be treated by effective peer review. But you can't lick something with nothing. The "let's kick the doctor" crowd have something. They've prettied it up for their customers, and now they seem to be pointing out that they have something that's new. But it isn't new and it isn't good.

Six years ago we were checking the things that our new administration had inherited in Sacramento, and we found an infant on our doorstep by the name of Medi-Cal. I have had reason to doubt its legitimacy more than once. It was only six months old then, but it was already a spoiled brat with a tendency toward obesity.

We learned in less than three months that it was out of control, with hundreds of millions of dollars already obligated. We asked for legislation to correct some of its more obvious defects, stating that unless corrected it would soon top the two-billion mark in cost in this state alone. Our request was denied, and our predictions scoffed at by the legislators who had sired it. In short, the plan simply amounted to providing an unlimited health care credit card for a certain segment of our society, offering almost three times as many services as most other insurance plans, and offering it to all recipients of welfare, plus non-welfare recipients who were deemed to be medically indigent.

It went on increasing in cost, 600 million dollars the first year, 100 million more the fol-

lowing year, then 200 million more each year after that. We took no joy in the fact that our predictions about the cost increase were proving correct. When it passed the one-billion, two-hundred million dollar mark, we set out to do a drastic overhaul combined with a complete reform of the welfare system which, incidentally, in California had been increasing over a period of years by 40,000 new cases each month.

Both attempts were met with a fierce and vindictive resistance, but we had the overwhelming support of the people. The reforms have been in operation just a little more than a year. When the wind comes down off the Sierras at night, you can still hear the anguished screams of the frustrated bureaucrats.

On welfare, we're not adding 40,000 cases a month anymore; we have almost a quarter of a million fewer cases than we had a little over a year ago. And the Medi-Cal budget is not up to two billion dollars, it is actually millions of dollars less than it was last year. The young man who had a great deal to do with engineering these reforms, Earl Brian, Secretary of Health and Welfare for California, is the first physician ever to hold a cabinet post in California state government. He is responsible for our health, manpower, and prison programs involving 45,000 employees at a yearly budget of six billion dollars, larger than the budgets of 46 of the other 49 states. Although he's only 30 years old, no doctor in this room is more devoted to the traditional doctor-patient relationship. No man or woman in this room is more pledged to uphold all the prerogatives of private practice of medicine, indeed of private enterprise itself, than Dr. Brian. Yet he has had the unhappy task of issuing and enforcing orders which many of you would feel interfere with your rights as physicians. These orders, mandated by statute and regulation, are part and parcel of government involvement in health care, because government's only tools are force and coercion. What we have now is only a hint of what you will have if the national health proponents have their way. You will become medical paper pushers as your British compatriots have often told you they are.

Dr. Brian has embarked on an effort to reduce the weight of government's hand as much as possible in the administration of our existing programs. His proposals are based on the idea that prepayment in the delivery of health care offers the best solution to the problem of cost

control and quality of care, but he means for this prepayment to bring about modern management and organization in the delivery of care with the physicians retaining control of their fiscal and professional destinies.

Our goal is to create workable ways to eliminate financial barriers to medical care for all our people through prepaid plans supervised by the medical profession. We want to create a situation where you can be free to practice medicine according to your own judgment and that of your peers, without having government looking over your shoulder telling you how to do it. Incentives have been established based on financial rewards for those operating prepaid health plans and relief from some of the more resented controls.

Prepaid health plans may be operated by a medical society or medical society health care foundation, a medical group practice, or a "blue" or private insurance company. Providers and enrollees in these plans are exempt from certain service limitations and utilization controls required under the open, fee for service system. For example, a prior authorization for hospitalization is not required. The prepaid health plans are free to be innovative in finding the most efficient and economic methods of service delivery. A competitive environment is maintained in that no exclusive territory is granted a prepaid health plan. The patients have the freedom of choice in selecting a prepaid health plan or retaining their open, fee for service medical status.

Our intent is to use these massive health programs as a change agent. This contrasts with the exploration at the federal level on as yet unformalized health maintenance organizations. Our prepaid health plan efforts are not based on theory but on several years of experience. We know that providers will find the plans financially advantageous and free of controls that restrict the free practice of medicine. Financially, the advantages are in lower cost operation, more rapid payment, and opportunity for the provider to control his rates by increasing productivity at the same time he provides quality care. The only restrictions on the free practice are minimum, none of which control how often or when a physician treats the patient.

Contracts for more than 250,000 Medi-Cal recipients are already signed. One of our largest plans was started July 1, 1972 by the Sacramento County Medical Society. Through its

medical care foundation, it has agreed to provide comprehensive health care to 56,000 medical recipients in the Sacramento area. More than 600 private practicing physicians have collectively taken the responsibility for their prepaid health plan; for their usual fees they will provide services to their patient in their offices and in the area hospitals. If the plan shows a profit, it will be shared by all. If it runs a deficit, that, too, will be shared by all.

Already the plan has enrolled 20,000 recipients, and everyone has profited. The doctors practice medicine without government intervention and receive their usual compensation. The recipients are treated as other private patients. The taxpayers through the government will save about 10 percent of the usual cost. We're particularly grateful for the tireless effort that has been shown by Dr. James Schubert, a Sacramento orthopaedic surgeon who is president of the foundation. Without his efforts, the plan wouldn't be a reality.

We view this as having the potential to test and create new vehicles for health care delivery which, on a volume basis, can be utilized as an alternative for all socioeconomic groups. Providers once organized in prepaid plans, whether for government subsidized patients, private patients, or both, will find there are savings in overhead administration. Bad debts are eliminated, income is predictable, cash flow controlled, claims simplified, and intervention by a third party payer is avoided. The provider is free to practice medicine according to his own judgment and that of his peers.

We believe that California has shown that government can tread the thin line between what has been and what can be. We welcome your queries, your studying of what we're doing, and your advice.

The watchword of our administration for these last several years is one that we constantly remind each other about when we have our meetings on problems of this kind in Sacramento. We say to each other, "When we start talking about government as 'we' instead of 'they,' we've been here too long." Our goal is to serve in such a way that the patient and the doctor will deal with each other in a more open marketplace. It's time for the medical profession to reassert its right through a prepaid health plan to practice in that free marketplace; and in so doing, help all of us remain free.

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Rondomycin[®]

(methacycline HCl)

CONTRAINDICATIONS: Hypersensitivity to any of the tetracyclines.

WARNINGS: Tetracycline usage during tooth development (last half of pregnancy to eight years) may cause permanent tooth discoloration (yellow-gray-brown), which is more common during long-term use but has occurred after repeated short-term courses. Enamel hypoplasia has also been reported. **Tetracyclines should not be used in this age group unless other drugs are not likely to be effective or are contraindicated.**

Usage in pregnancy. (See above **WARNINGS** about use during tooth development.) Animal studies indicate that tetracyclines cross the placenta and can be toxic to the developing fetus (often related to retardation of skeletal development). Embryotoxicity has also been noted in animals treated early in pregnancy.

Usage in newborns, infants, and children. (See above **WARNINGS** about use during tooth development.)

All tetracyclines form a stable calcium complex in any bone-forming tissue. A decrease in fibula growth rate observed in prematures given oral tetracycline 25 mg/kg every 6 hours was reversible when drug was discontinued.

Tetracyclines are present in milk of lactating women taking tetracyclines.

To avoid excess systemic accumulation and liver toxicity in patients with impaired renal function, reduce usual total dosage and, if therapy is prolonged, consider serum level determinations of drug. The anti-anabolic action of tetracyclines may increase BUN. While not a problem in normal renal function, in patients with significantly impaired function, higher tetracycline serum levels may lead to azotemia, hyperphosphatemia, and acidosis.

Photosensitivity manifested by exaggerated sunburn reaction has occurred with tetracyclines. Patients apt to be exposed to direct sunlight or ultraviolet light should be so advised, and treatment should be discontinued at first evidence of skin erythema.

PRECAUTIONS: If superinfection occurs due to overgrowth of nonsusceptible organisms, including fungi, discontinue antibiotic and start appropriate therapy.

In venereal disease, when coexistent syphilis is suspected, perform darkfield examination before therapy, and serologically test for syphilis monthly for at least four months.

Tetracyclines have been shown to depress plasma prothrombin activity; patients on anticoagulant therapy may require downward adjustment of their anticoagulant dosage.

In long-term therapy, perform periodic organ system evaluations (including blood, renal, hepatic).

Treat all Group A beta-hemolytic streptococcal infections for at least 10 days.

Since bacteriostatic drugs may interfere with the bactericidal action of penicillin, avoid giving tetracycline with penicillin.

ADVERSE REACTIONS: Gastrointestinal (oral and parenteral forms): anorexia, nausea, vomiting, diarrhea, glossitis, dysphagia, enterocolitis, inflammatory lesions (with monilial overgrowth) in the anogenital region.

Skin: maculopapular and erythematous rashes; exfoliative dermatitis (uncommon). Photosensitivity is discussed above (See **WARNINGS**).

Renal toxicity: rise in BUN, apparently dose related (See **WARNINGS**).

Hypersensitivity: urticaria, angioneurotic edema, anaphylaxis, anaphylactoid purpura, pericarditis, exacerbation of systemic lupus erythematosus.

Bulging fontanels, reported in young infants after full therapeutic dosage, have disappeared rapidly when drug was discontinued.

Blood: hemolytic anemia, thrombocytopenia, neutropenia, eosinophilia.

Over prolonged periods, tetracyclines have been reported to produce brown-black microscopic discoloration of thyroid glands; no abnormalities of thyroid function studies are known to occur.

USUAL DOSAGE: Adults—600 mg daily, divided into two or four equally spaced doses. More severe infections: an initial dose of 300 mg followed by 150 mg every six hours or 300 mg every 12 hours. Gonorrhea: In uncomplicated gonorrhea, when penicillin is contraindicated, 'Rondomycin' (methacycline HCl) may be used for treating both males and females in the following clinical dosage schedule: 900 mg initially, followed by 300 mg q. i. d. for a total of 5.4 grams.

For treatment of syphilis, when penicillin is contraindicated, a total of 18 to 24 grams of 'Rondomycin' (methacycline HCl) in equally divided doses over a period of 10-15 days should be given. Close follow-up, including laboratory tests, is recommended.

Eaton Agent pneumonia: 900 mg daily for six days.

Children—3 to 6 mg/lb/day divided into two to four equally spaced doses.

Therapy should be continued for at least 24-48 hours after symptoms and fever have subsided.

Concomitant therapy: Antacids containing aluminum, calcium or magnesium impair absorption and are contraindicated. Food and some dairy products also interfere. Give drug one hour before or two hours after meals. Pediatric oral dosage forms should not be given with milk formulas and should be given at least one hour prior to feeding.

In patients with renal impairment (see **WARNINGS**), total dosage should be decreased by reducing recommended individual doses or by extending time intervals between doses.

In streptococcal infections, a therapeutic dose should be given for at least 10 days.

SUPPLIED: 'Rondomycin' (methacycline HCl): 150 mg and 300 mg capsules; syrup containing 75 mg/5 cc methacycline HCl.

Before prescribing, consult package circular or latest PDR information.

Rev. 6/73



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This Perplexing Power

In pondering the evident ambivalence of the public toward its physicians, we have arrived at the conclusion that it is related to the concept of power. This is a word that is getting excessive use at the moment and means different things to different people, but our interpretation in this context is the capability for and application of the control of one individual or group over another.

Fear of external power is the corollary of the love of freedom. Man is uneasy in the face of power. His self-centrism demands that he control his own destiny, a patent impossibility in a complex society. So he is in continual compromise with external powers, trying to reconcile protection *from* power with protection *by* power. The primal intellect, recorded in folklore and legend (more accurate reflections than formal history), recognizes the invasion by power as malign—haunting, possessing, bewitching—or benign—exalting, elevating, deific. Whether for good or evil, this invasion takes something from the individual in return for the effect it bestows.

This, then, is the individual who presents himself to the physician with his medical problem. He seeks comfort and healing, but to achieve this he must deliver himself into the power of another individual. He may be so ill in body that he willingly transfers control of his own destiny to this agent in a form of therapeutic contract, or he may be so ill in mind and spirit as to seek this transference to anyone who will accept the obligation he abhors.

The problems facing the physician today stem from the interpretation and application of his power. His lack of availability at all times and in all places and to all people is interpreted as an expression of his power to provide his service only at his own pleasure. Legal actions against him are actions against his power to provide the service by his own standards, whether of availability, capability, or communication. His self-determined fee for his service represents his power to assess its value in monetary terms without regard for the patient's entrapment. The individual patient with ready access to his physician, informed application of the service, and

justifiable charge sees this power as benign and no threat to his integrity, but the impersonal public sees it as potentially malignant and, therefore, in need of control.

The physician is both loved and feared because of this power. It does not matter if he discounts this power—he is not the one assessing it, for the patient, in his acceptance of the diagnostic and therapeutic regimen, determines to large extent its effectiveness. The diagnosis may be frightening and the physician becomes the “cause” of this distress, or he may become the advocate who will effect relief, or, usually, a combination of the two. Into the contract, in fine print, the patient inserts the clause, “I give over to you this thing which is of prime importance to me—myself. Now you are obligated to return me healed—and *whole*.” The patient thereby accepts the beneficence of the power but reassures himself he will not remain under its dominance.

Payment of the physician's fee may be the mechanism by which the patient further relieves himself of this dominance—or it may seem an unjustified demand which exemplifies the power of the physician. If the patient feels he had no voice in the determination of the fee or accepted the obligation under the coercion of pain or discomfort, he will find it easy to consider it unjustified after the stress of illness is relieved and to feel subjugated by the power of the physician to dictate the monetary value of the service. His interpretation will be determined by his concept of the power of the physician as it has been applied to him.

However satisfactory the patient's personal adjustment to the physician, he is constantly aware of the threat of illness and injury and longs for the assurance that he will not be invaded by these powers. However grateful he is for the service in a specific instance, he somehow views this individual who profits from such a power as an instrument of it. Thus, while he may be restrained from reaction against his personal physician, he readily accepts complaints and charges against the medical group as a whole, interpreting the *possibility* of violations of this power as fact. Though he may have had eminently satisfactory experiences himself, he is always aware of “someone” who had an unsatisfactory experience at some place and some time.

Organized medicine, in its anonymity, rep-

resents an embodiment of this power to profit from others' distress and railing against it helps to relieve some of the fear of the threat without specifically alienating the personal physician. A call for a change in the medical system may not stem so much from unsatisfactory personal experience with medical contact—or an altruistic concern over the brother who for some reason has had inadequate medical service—as rejection of the power concept which derives basically from man's dependence on but fear of the medical service.

Medical service in any age has been a reflection of that age. Never in the history of man has he had so much personal voice in his gov-

erning as he has now. Never have so many been able to read and communicate on an effective level. Never have social achievements been so widespread and beneficial. Never has man been able to produce so much food—or made such an effort to distribute it adequately. Never have men worked so diligently to live together peaceably and profitably. And never has man had better health and medical care.

But the accomplishments accentuate the deficiencies and never has man had such power—and been more uncertain how to face it or use it.—D.E.G.

Reprinted from the *Journal of the Kansas Medical Society*, April, 1973

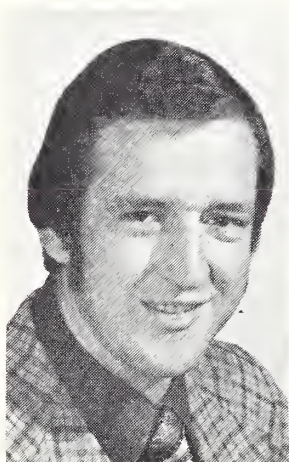
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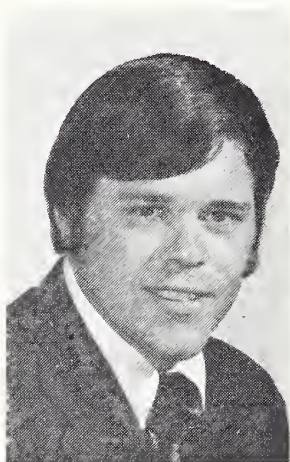
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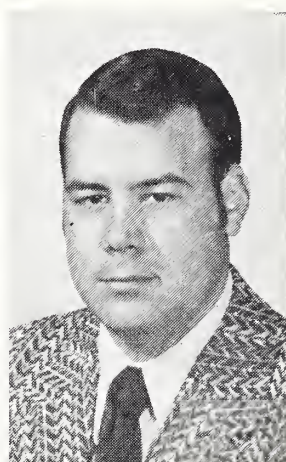
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*The Training and Utilization of Paramedical Personnel: A Symposium The Experience in Macon County, Tennessee**

I. THE DEVELOPMENT OF A CONCEPT

Robert M. Metcalfe, M.D.†

Historical Trends

Critics frequently have leveled the charge that while the scientific content of medical care has been revolutionized, the organization of health care delivery has made no major changes in the last 50 years. Three footnotes to history deny this charge.

Footnote one: This century has seen an enormous expansion of medical care providers other than physicians. At the beginning of the Twentieth Century for every physician there was only one other allied health worker; there are now eleven¹ and by 1980 there may be fifteen or more. A health careers guide-book identifies 200 different health career opportunities.² Indeed the number of health workers in our nation has increased two and a half times the rate for people in all jobs.³

Physicians have willingly delegated new and old tasks to that expanding circle of associates known as paramedical.

Footnote two: The past forty-year binge in specialization has transformed the delivery of medical services; the public finds it increasingly difficult to get care for common and minor illnesses or to secure continuing comprehensive care. Forty years ago, four of five physicians were general practitioners; now only one in five.⁴ If you combine internists, pediatricians and general practitioners as generalists the trends are no bet-

ter. From 1950 to the present there has been a decline by one-third in the ratio of these generalists to population.⁵ I know of no evidence offering hope for a change in this trend. The majority of present medical students will apparently reject the call for family physicians and follow their fathers into specialization rather than follow their grandfathers into primary care.

Footnote three: The increase in allied health workers and in specialization has been accompanied by an increased expectation by patients (much of it, but not all, justified) and a soaring demand. Physicians have responded by almost tripling their average weekly case load in one generation (1935, 50 patients per week; now 132 patients).⁷

Burgeoning demand for comprehensive health services, a decline in generalists, a great expansion in allied health workers most of whom are also specialists! How can these seemingly contrary trends be molded into an efficient and compassionate system?

How To Care For More Patients

Looking at solutions from the somewhat parochial perspective of a physician we could (1) try to decrease the demand for unnecessary services, (2) increase the number of physicians, and (3) increase physician productivity. Most of the physicians I know, already harassed, recoil at the idea of increasing productivity; yet in the long view this offers the best solution. A three percent increase in productivity of American physicians would be equivalent to the service rendered by a year of medical graduates!

Increased physician productivity does not necessarily require longer hours (already an average 63 per week) but rather more patients cared

* Presented before the Upper Cumberland Medical Society, June 20, 1973, Red Boiling Springs.

† Associate Professor, Department of Family and Community Health, Meharry Medical College, Nashville, Tenn.

tor through expansion and organization of paramedical services. Such expansion and organization need not result in deterioration of quality and could enhance it.

In my judgment, the best manpower source to meet this demand is the nursing profession. Creative, deliberate and cooperative expansion of the nurse's role in primary care can do more to meet our needs than accelerating and augmenting physician education or the training of physician assistants *de novo*, laudable as these activities may be.

A primary care team composed of a physician, a "super nurse" (they go by various names—nurse clinicians, nurse practitioners, nurse specialists), one or two nursing assistants, and an aide could care for forty adult patients a day and do a high quality job, even if many of the patients have multiple health problems.⁸

During the last five years the feasibility of using well trained non-physicians for many patient care activities has been demonstrated repeatedly. Specially trained nurse assistants can assemble much of the basic historical and observational data necessary for quality care. They can elicit chief complaints, descriptions of present illness, review of systems, and past personal, and family history. They can be taught to examine any and all parts of the human body and to recognize the presence of abnormalities, if not their precise pathologic nature. They can follow protocols for the logical ordering of laboratory and X-ray tests. Some of the better qualified can assist in the development of a patient problem listing. Since well over half of the patients that are seen in routine family practice require follow-up for relatively stable chronic conditions, examination without serious illness, or care for acute minor respiratory diseases, a "super nurse" can adequately manage (with appropriate supervision) as many patients as can the physician with whom she works.⁹

Such organization of team care is one of the highest priorities facing American physicians today. As Dwight Wilbur, M.D. has stated, "Development and implementation of the concept of the health team are essential to the solution of the problems of health manpower. . . ." There is no more important requirement for solving the health manpower problem than the proper advancement and implementation of this concept.¹⁰

This urgent need offers opportunity to professionals. The Tennessee Medical Association has recognized "the need for expanding the role

of the professional nurse in providing health care" because (for one reason) "the use of the specialty trained professional nurse can benefit those sections of the population without adequate health care or immediate availability of service."¹¹ It is because of this unmet need that the recent experiences in Red Boiling Springs are of importance to Tennessee citizens and their physicians.

II. THE SETTING IN RED BOILING SPRINGS

Judge Doyle Jenkins

Red Boiling Springs, Tennessee

Only three physicians and five registered nurses practice within Macon County, Tennessee. Red Boiling Springs, located in the eastern corner of the county of 12,300 people has a population of approximately 600. Because the nearest hospital is fourteen twisting miles away, between five and seven thousand people would be served by a medical facility in the town.

In 1971 a group of interested citizens met and organized the Red Boiling Springs Medical Council, Inc. Thirty-four hundred dollars was raised locally, and the council began searching for personnel and facilities. The Upper Cumberland Health Planning Council provided consultative services. The Office of Economic Opportunity and the Tennessee Mid-South Regional Medical Program responded to requests for financial assistance, and in the summer of 1972 a contract was drawn up by the council and Miss Carolyn Whitaker, a Family Nurse Clinician.

III. THE MACON COUNTY EXPERIENCE

William R. Bushong, M.D.

Gamaliel, Kentucky

Carolyn Whitaker, R.N., F.N.C.

Red Boiling Springs, Tennessee

Organizing a Community Clinic

The nurse's initial visit to Red Boiling Springs was her first interview in which the prospective employer was a group of consumers who were articulate in identifying health needs, and expecting to share in the planning, development, and implementation of a health service to meet those needs. The difficult questions they posed were based on real and practical health situations which these people were having to face and solve.

At that meeting the nurse explained what a family nurse clinician is and what she is capable

of doing. The following definition summarized the functions of this new breed of professional nurse.

"The family nurse clinician is a professional nurse who by virtue of a formalized graduate program of study is qualified to practice her clinician expertise in the management of health care of individuals, families, and communities. As a diversified health care worker she (1) determines and facilitates the application of preventive and promotive health measures, (2) diagnoses, treats, and prescribes for common deviations from wellness, and (3) maintains the care of stabilized chronic disease across all age groups. As a health care team member she may be depended upon to do so independently, in collaboration with other health professionals or by accurate referrals to appropriate specialists for further diagnosis and treatment. She continuously seeks to increase knowledge, and systematically evaluates and alters her practice in light of advanced current scientific knowledge in relation to consumer needs and demands. She assumes her responsibilities in the health care system and in the profession through service as a clinician, consultant, leader recorder, and writer. She becomes immersed in those activities related to her primary responsibility: the improvement of quality health care to consumers."¹²

Two thousand one hundred and eighty signatures were obtained as a pledge of the community's support for this new type of health professional service. The Council's Executive Committee and the nurse developed a contract, organizational plans for a clinic, and arrangements for the clinical services.

The purpose of the resulting Family Nurse Service Clinic was to strengthen and expand primary health care in this hilly, disadvantaged service area and to provide integrating mechanisms for systematic utilization of physicians and specialized services located outside the area. The provision of primary and maintenance health care by professionals other than physicians was to be demonstrated through the use of a family nurse clinician with a sponsoring physician. Consumers were given the choice of their personal physician and had the opportunity to receive quality primary and maintenance health care in an economical and efficient manner.

Consultative Resources for Development and Planning

Because this was a totally new subsystem of health care being established within the existing health care system, representing a new role for a registered nurse in our state, it was imperative that counsel and guidance be solicited from established state health care resources. The advice of physicians both in and outside the proposed

service area was sought. The Board of Directors of the Tennessee Nurses Association was requested to review the proposal. The counsel of the Director of Nursing of the Tennessee Department of Public Health, the Tennessee Mid-South Regional Medical Program, and personal medico-legal assistance were obtained. The Upper Cumberland Health Planning Council continued to act as a resource to the executive committee of this new organization.

The Family Nurse Service Clinic was the first project of the Council. The contractual agreement provided for the nurse to work under a fee-for-service arrangement with a guaranteed annual income for the first year, allowing for increments on an increased cost of living basis and option for renewal of the contract by mutual agreement of the parties involved.

Clinic Facilities and Staffing

The physical plant is a leased facility twenty by seventy feet, with ample space for parking. There are three examining rooms, laboratory, drug room, teaching-conference room, offices, reception room, lavatories, record room and storage. The equipment is owned by the council.

Clinic staff development was planned to provide initially for one family nurse clinician and one clinic assistant. The assistant's responsibilities included office management and records, simple laboratory procedures and assistance to the family nurse clinician when needed.

The nurse's professional linkage with physicians was through a protocol based on The Kentucky Frontier Nursing Service Manual of Directives¹³ which had been edited and provided all physicians of the surrounding area. The directives contain a pharmaceutical formulary used in the Family Nurse Service Clinic. The protocol consists of standing orders for management of more than one hundred common deviations from wellness after the physical status is determined by the family nurse clinician. Should a physician or patient desire the administration of a periodic medication or laboratory study a specific order is written and filed in the patient's record.

The nurse (Miss Whitaker) was in contact with the physician collaborator (Dr. Bushong) on a weekly basis, or more often if needed, to discuss patients seen in the clinic. Once weekly, she attended hospital rounds with this physician, reviewing patient records and seeing patients in the emergency room in addition to other continuing education activities.

This collaborative physician sponsorship was provided entirely on a volunteer basis. The physician was available for consultation at any time despite the location of his office, approximately eighteen miles away.

Physicians in the surrounding areas (within-five mile radius) were invited to hold staff membership with the clinic. This relationship had been selected after exploration of several models of functioning. Interaction with physicians was determined by the preference of the patient. Should a patient not have a physician when one was required, referral was made from a rotating monthly schedule of staff physicians.

Initially, clinic hours were developed based on demographic data and staff consideration. Teaching hours were included in total program development. Home visits were scheduled for mornings and afternoons. Emergencies in the clinic and home were handled as they arose. The ambulance for emergency medical service was stationed across the street from the clinic.

By community choice and under the sponsorship of the family nurse clinician, a weight reduction program was established in January, 1973. The group held weekly meetings. Membership was open to any individual interested in improving dietary habits resulting in weight loss. At the completion of four months the group's 40 members had elected officers, established policies, organized an optional individual exercise program, and had lost approximately 500 pounds. To promote careers in the health field, the family nurse clinician used adult and youth volunteers whose career interests included nursing, rural medicine and laboratory careers.

Clinic Objectives and Services

The overall objective of the clinic is to provide

primary care and health maintenance for adults and children in an ambulatory setting at their point of entry into the health care system. The more common illnesses diagnosed and treated include upper respiratory infections, urinary tract infections, dermatological problems, and eye infections. Examples of maintenance care were management of stabilized chronic diseases such as hypertension, diabetes, chronic lung disease, heart disease, cancer screening and allergies. Multi-screening service included tuberculosis, parasites, cancer, and venereal disease as well as growth and development check-ups for children from birth to six years. Physical examinations of adults and children included urinalysis, packed cell volume and hemoglobin concentration. Supervision of prenatal and postnatal care in pregnancy were available. Disease prevention services included head-start and preschool physical examinations.

Laboratory services available included urinalysis with microscopic examinations, serum hemoglobin determinations, blood glucose, uric acid, blood urea nitrogen, and cholesterol. State Health Department laboratory services were used for certain cultures and serologic tests.

Clinic records, kept by a family system, were developed on the problem oriented approach for patient care. Some records were kept in duplicate and readily available for transfer. The record system could be converted easily to a computer service.

During the initial seven months a total of 1,910 patients were seen by the Family Nurse Clinician. There were 643 families registered in the family record system. Tables I and II demonstrate clinical data during the first seven months of the clinic's operation.

Community acceptance has been strongly posi-

TABLE I

FAMILY NURSE SERVICE CLINIC		PROJECT PERIOD: <i>September 1, 1972-April 30, 1973</i>							
CLINICAL SERVICES STATISTICAL DATA									
October 1, 1972-April 30, 1973									
	<i>Oct.</i>	<i>Nov.</i>	<i>Dec.</i>	<i>Jan.</i>	<i>Feb.</i>	<i>Mar.</i>	<i>Apr.</i>	<i>Total</i>	
Number of patient visits*	138	271	280	303	425	256	237	1910	
Number of persons using clinic**	115	239	211	233	323	161	177	1459	
Missed appointments***	5	48	43	83	107	56	55	397	
Returned appointments****	12	37	29	52	71	52	57	310	
Number of Families Registered*****			335	435	530	509	643	643	

*Number patient visits—Total patients seen by FNC
**Number of persons using clinic—Total number first time visits by persons to clinic
***Missed appointments—Number of persons failing to return on scheduled appointments
****Returned appointments—Number of persons returning as scheduled
*****Number of families registered—Total number of families registered on last day of each month

TABLE II

ACTIVITY: *Family Nurse Service Clinic, Red Boiling Springs*PERIOD: *October 1, 1972-April 30, 1973*

MANAGEMENT COMPLETED BY TYPE OF ILLNESS/INJURY

<i>Type Illness/Injury</i>	<i>No Treatment</i>	<i>Treatment Incomplete</i>	<i>Treatment Completed</i>
Endoc./Metabol.		10	11
Skin	2	68	49
Ear, Nose, Throat	3	465	372
Eye		18	11
Dental		6	4
Respiratory	1	68	51
Cardiac		15	12
Vascular	1	30	29
Abdominal/Gastrointestinal	2	34	41
Liver/Biliary		4	4
Genitourinary	1	45	26
Gynecologic		65	28
Musculoskeletal	2	27	38
Nervous System	1	1	5
Psychiatric	3	27	21
Obstetrics		13	6
Blood/Lymph		6	1
Preventive Health	72	52	218
Wounds	1	72	33
Unspecified/Unclass.		4	11
Obesity		3	
Total	<u>89</u>	<u>1033</u>	<u>971</u>

tive as documented by questionnaires given to patients after clinic visits.

In summary the Family Nurse Service Clinic introduced a level of primary, preventive and promotive health care service to a rural community that has experienced a crisis in health care service. The family nurse clinician did not purport to be a mini-physician but rather complemented the physicians in a collaborative team relationship and in consort with other health care resources in this specific community. In addition to diagnosing, treating and giving nursing care of common illnesses and management of stabilized chronic diseases, the nurse complemented the physicians' functional activities and relieved the physicians of detailed medical work-ups on patients referred to physicians for services.

The experience at Red Boiling Springs suggests that through a cooperative relationship it is possible to provide recipients with more satisfying and better quality of care than is possible without the additional contributions of the family nurse clinician.

EDITOR'S NOTE: On August 31, 1973, exactly one year after it began, the Macon County experiment came to an end with the coming of a phy-

sician to Red Boiling Springs. Miss Whitaker left the clinic and joined Dr. Bushong in Gamaliel, Kentucky.

As is true of most innovations, it was not entirely non-controversial. Some physicians saw it as an encroachment on the practice of medicine, others as a counterfeit for good medical care. Nor was the program wholly without problems in the community.

In spite of problems, detractors, and skepticism, however, the experiment was a success, because the program did what it was intended to do. First, it brought quality medical care to an underserved area, and as with any such program, indeed with the practice of medicine anywhere, its success depended on the skill and devotion of the Family Nurse Clinician. Second, because it was never intended to replace physicians care, it terminated when primary physician care became available.

Perhaps at some time in the future not only will there be enough doctors, but they will be so distributed as to fulfill all of the medical needs of all the people. Until that happens, though, we need to explore all of the avenues for seeing to it that people are properly cared for. It is for this reason this symposium is still pertinent,

for even though the experiment has ended, its conclusions, as expressed in the closing paragraph of the symposium, seem valid. It would be a mistake to dismiss it from our thoughts. So without apology we publish it here for your edification and consideration.

REFERENCES

1. American Medical Association: *Reference data on socioeconomic issues of health*. 1971.
2. U. S. Department Labor: *Health Careers Guidebook*. 1965.
3. Ginsberg, E: *Men, Money and Medicine*. Columbia University Press, 1969, p 154.
4. Somers, AR: *Health care in transition: directions for the future*. Hospital Research and Educ. Trust, Chicago, 1971, p 7.
5. Ibid, p 7.

6. Ibid, p 8.
7. Ibid, p 8.
8. Wolfe, S, Badgley, RF: *The Family Doctor*, Milbank Memorial Quarterly, New York, Vol 1, April, 1972, Part 2, pp 168-178.
9. Ibid, pp 26ff.
10. Wilbur, DL: Total manpower needs and resources—Medicine and nursing. *Nursing Outlook*, 17: 32-35, Dec, 1969.
11. TMA resolution No. 24-73, *JTMA*, 66: p 541, 6-73.
12. This definition was developed in collaboration with Beverly Bowns, PhD, Professor, Community Health Nursing, University of Tennessee College of Nursing, Memphis, Tennessee, 1972.
13. Frontier Nursing Service: *Medical Directives*, 6th Edition, Revised April, 1972. Wendover, Kentucky, 41775.

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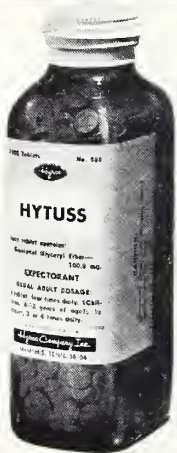
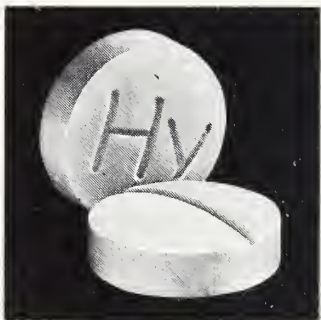
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Emergency Care of Acute Poisonings

EUGENE F. DIAMOND, M.D., Professor of Pediatrics
Loyola University of Chicago—Stritch School of Medicine
Director, Poison Control Center—Loyola University Hospital

Whenever a patient, particularly a child, is seen with a bizarre chain of signs and symptoms and presents an obscure and uncertain diagnosis, ingestion of a drug or exposure to a toxic chemical compound should be considered. The diagnosis of poisoning is made from:

- 1) A history of witnessed ingestion or the finding of the child with an emptied container.
- 2) The label on the poison container. The Federal Hazardous Substances Act of 1960 requires that dangerous household chemicals bear a label which clearly lists ingredients. This has been a tremendous step forward in the diagnosis as well as the prevention and treatment of poisoning.
- 3) Characteristic, suspicious or suggestive signs and symptoms.
- 4) Chemical analysis.

In most instances of poisoning, particularly in children, the circumstantial evidence is so strong that there is no problem in determining that a substance was ingested. The problem then becomes a matter of ascertaining: 1) Is it a poison? 2) How much was taken? 3) What toxic clinical signs and symptoms are to be expected?

- 1) Is it a poison?

Using the figures from the National Clearinghouse for Poison Control Centers, it can be estimated that about 3,000,000 ingestions occur annually. Of these, only about 1 in 50 is reported and the majority of ingestions are innocuous.

A clue to the toxicity of a product may be gained from a "signal word" on the package. This serves to alert the public and physicians as to toxicity.

Thus if the lethal dose is "a taste to a teaspoon" of the product, it carries a "Danger-Poison" label. If the lethal dose is between 1 teaspoon and 1 ounce, it has a "Warning" label. If the lethal dose is between an ounce and a pint, it has a "Caution" label, and if the lethal dose is more than a pint, it requires no label.

If convinced that the ingested material is toxic or when there is doubt, the next move would be to attempt to get rid of the poison or at least that

part of the ingestion which is still in the stomach when the patient reaches the emergency room. This is accomplished by lavage or induced emesis.

The trend now has been toward induced emesis rather than lavage. The effectiveness of either induced emesis or lavage varies inversely with the time lapse. Emesis can usually be induced earlier than lavage can be carried out. This is especially true if there is syrup of ipecac in the home. Judging by data from investigations of the absorption of salicylates, ipecac induced emesis is also more effective than lavage in removing the poison.

The dosage of *syrup of ipecac* is 15cc, repeated in one-half hour if needed. About 97% of patients will vomit with this dosage. Syrup of ipecac is quite safe to use. It may be dispensed without prescription and should be available in every home. *FLUID EXTRACT OF IPECAC* is toxic and should NOT be used. Occasionally patients who have ingested anti-emetics such as phenothiazine will resist the emetics even in increased dosage.

An alternative to the use of syrup of ipecac, in the child who will not swallow the syrup or the suicidal adult who refuses to accept it, is apomorphine parenterally in a dosage of 0.1mg 1Kg.

Who should not receive an emetic? The three principal categories are: a) Those who have swallowed hydrocarbons in whom induced emesis might increase the risk of aspiration; b) Those who have swallowed caustics; c) Those who have taken sedative drugs and who give indication that they might go into coma before emesis occurs.

Another method for limiting absorption of a drug is to give drugs which retard the rate and degree of absorption. The best known physiochemical agent for this purpose is activated charcoal. Activated charcoal is highly effective in inhibiting the absorption of a broad spectrum of chemical compounds. It has been demonstrated to be effective in salicylate, barbituate, strychnine, morphine, atropine, mercury, arsenic, and antihistamine ingestion. It may be used in combination with apomorphine induced emesis or following syrup of ipecac induced emesis. It should not be given at the same time as syrup of ipecac since it will bind ipecac and render it ineffective.

From the Commission on Emergency Medical Services, American Medical Association.

Other specific antidotes which may be used to combat specific ingestions are: 1) Tannic acid (used when alkaloids or metals are ingested); 2) MgO_2 (used when mineral acids are swallowed); 3) Milk and egg white (metallic poisoning, especially lead); 4) Lemon juice or vinegar (to counteract caustic effects).

2) How much was taken?

It is usually impossible to ascertain precise amounts of poisons taken by children and suicidal adults. 80-90% of poisonings will involve children under five years of age. There were over 76,000 such poisonings reported to the National Clearinghouse for Poison Control Centers from 46 states in 1969. The principal categories of substances swallowed were as follows:

Medicines	53.4%
Aspirin	19%
Other internal	27.7%
External	6.7%
Cleaning and Polishing Agents	14.4%
Cosmetics	6.7%
Paints & Petroleum Products	9.8%
Pesticides	5.2%
Plants	4.4%
Miscellaneous	6.1%

Some estimate of the amount ingested can be made by having the container available and by carefully interrogating the witnesses as to the maximum possible dose taken.

Where there is no witness to the poisoning or where the material ingested is not known, some preliminary observations may be helpful in, at least, establishing a category of poisoning.

- 1) *Vomiting* would suggest the possibility of metals, alkali, acids, bacterial food poisoning or high doses of drugs such as aspirin.
- 2) *Convulsions* would suggest central nervous system stimulants such as camphor or strychnine.
- 3) *Depression* would suggest one of the categories of sedative drugs.
- 4) *Dilated pupils* would be symptomatic of poisoning with atropine, cocaine, or ephedrine.
- 5) *Pinpoint pupils* would point to opiates.
- 6) *Skin discoloration*. A slate blue skin discoloration without dyspnea would indicate one of the poisons capable of causing methemoglobinemia (such as nitrates or topical anesthetics). A cherry-red discoloration of the lips with florid facies would indicate carbon monoxide.
- 7) *Laboratory findings*. A urine specimen should be obtained, if possible. The ferric chloride or *Phenistix* test, if positive, would implicate aspirin or phenothiazines. A positive *Destostix* test for glucose could indicate glycosuria due to ethanol or aspirin. Coproporphyrin in the urine constitute a screening test for lead and other heavy metals

affecting kidney function may result in protemuria.

In all unknown poisonings a blood specimen should be drawn and sent to the laboratory with a portion of the gastric fluid obtained by lavage or emesis.

These can be used for more refined toxicological evaluation.

Marijuana

Although the use of marijuana is apparently on the increase in our society, a recent report from the Los Angeles County Hospital indicated only 9 hospitalizations for marijuana complications over a ten year period during which over 700,000 patients were admitted. Five of these admissions followed intravenous use of marijuana, one involved the oral route and only three followed smoking.

The National Institute of Mental Health in its report to Congress makes the following points about marijuana usage.

- 1) Most American experience has been limited to the widespread relatively infrequent use of a rather weak form of marijuana.
- 2) Although the principal active ingredient is thought to be delta-9-tetrahydrocannabinol, much remains to be learned about the chemistry of marijuana and related substances.
- 3) Principal subjective effects are:
 - a) Alternation of time and space perception
 - b) A sense of euphoria and disinhibition
 - c) Dulling of attention
 - d) Fragmentation of thought
 - e) Impaired recent memory
 - f) Exaggerated laughter and suggestibility
- 4) Major physical findings are:
 - a) Increased pulse rate
 - b) Reddening of the eyes
 - c) Dryness of mouth and throat
 - d) Tremulousness and unsteadiness at higher dosages

For most users and experimenters the "high" is what they are seeking and they therefore will not seek medical attention (any more than the henpecked husband will ask the bartender to take him to the emergency room because whiskey makes him forget his nagging wife).

Experience in the emergency room will therefore be restricted to acute psychotic reactions re-

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Congenital Adrenal Hyperplasia (CAH)

As with other rare causes of hypertension (primary aldosteronism, coarctation of the aorta, liquorice intoxication), the importance of correctly diagnosing CAH lies in the ready availability of specific therapy. In addition, the underlying adrenal insufficiency and abnormal sexual development will benefit from the same treatment.

Of the several enzymatic disorders which fall under the general heading of CAH, only deficiency of either 11 β -hydroxylase or 17 α -hydroxylase is associated with hypertension. The former has been reported much more frequently than the latter, accounting for 5% of CAH. It will be seen in Fig. 1 that both of these enzymes are essential for the normal biosynthesis of cortisol. When the activity of either enzyme is depressed, plasma cortisol falls. To compensate for this, ACTH is secreted from the pituitary in excess. Since the

11 β -Hydroxylase Deficiency

Reduced activity of 11 β -hydroxylase results in accumulation of DOC and S (Fig. 1). Androgens are also secreted in excess by the adrenal. Virilization, e.g. clitoromegaly and labial fusion, may be present at birth and incorrect gender assignment is possible in female patients. The abnormality may however be milder or develop later in childhood or adulthood, e.g. hirsutism and amenorrhea. Puberty occurs prematurely in male patients. Hypertension occurring in a patient with abnormal sexual development should raise the suspicion of CAH. As children, these patients grow rapidly, but early epiphyseal closure results in a stunted adult height. Laboratory findings include hypokalemic alkalosis, elevated plasma DOC and S, and elevation of urinary tetrahydro DOC, tetrahydro S, pregnanediol and pregnanetriol, all of which is corrected following

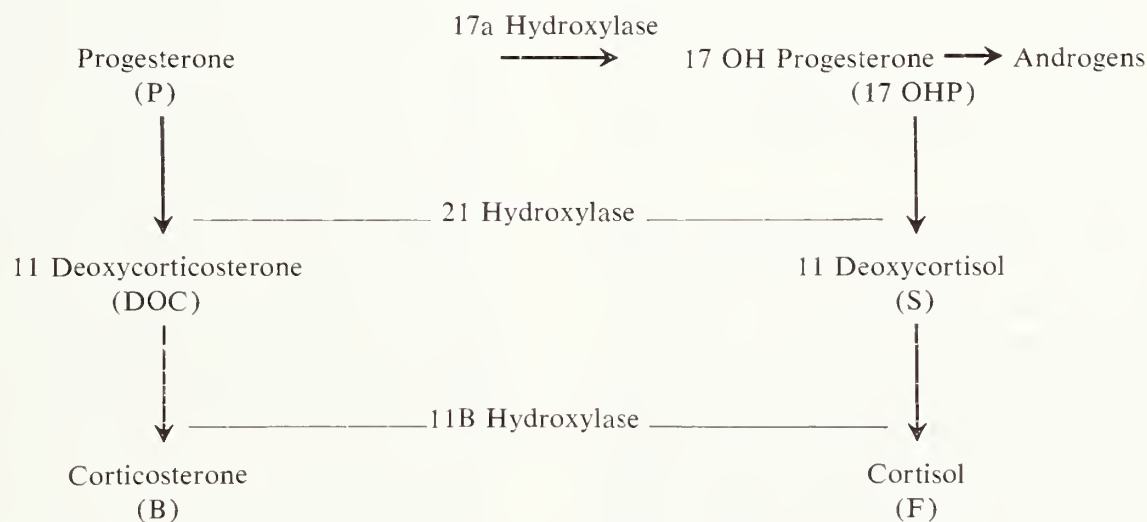


FIG. 1 Some steps in normal adrenal steroid biosynthesis.

normal biosynthetic pathway to cortisol is interrupted, precursors and mineralocorticoids, principally DOC, will accumulate. Consequently salt retention and hypertension develop. If glucocorticoid is given to patients with this disorder, ACTH secretion falls, plasma DOC is suppressed, hypertension subsides and cortisol deficiency is treated appropriately.

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glucocorticoid administration. Plasma B and F, urinary tetrahydro B and tetrahydro F are suppressed at all times.

17 α -Hydroxylase Deficiency

Normal 17 hydroxylase activity is essential for the biosynthesis of cortisol, androgens, and estrogens. When activity of this enzyme is reduced, DOC and B accumulate. At birth male subjects may be poorly virilized (hypospadias, deep scrotal cleft) but some are normal. Later puberty

TABLE 1

Summary of the biochemical and physical findings in patients with hypertensive types of CAH.

Enzyme Deficiency	Plasma and urinary levels of adrenal steroids and their metabolites							Physical Findings	
	P	17OH P	DOC	S	B	F	KS*		
11 β Hydroxylase	↑	↑	↑	↑	↓	↓	↑	B. P. ↑ VIRILISM	PRECOCIOUS PUBERTY SHORT ADULT STATURE
17 α Hydroxylase	↑	↓	↑	↓	↑	↓	↓	B. P. ↑	SEXUAL INFANTILISM EUNUCHOIDISM

*KS = Urinary 17 ketosteroids ↑ = Elevated ↓ = Suppressed

Note: The urinary metabolites of progesterone and 17 OH progesterone are pregnanediol and pregnanetriol respectively.

fails to occur in both male and female patients and a eunuchoid body habitus develops. Hypertension occurring in a patient with sexual infantilism should alert the physician to the possibility of underlying CAH. Laboratory findings include hypokalemic alkalosis, elevated plasma DOC, B and P and elevated urinary tetrahydro DOC, tetrahydro B and pregnanediol, all of which is corrected following glucocorticoid administration. Baseline plasma S and F, urinary 17 hydroxycorticoids, tetrahydro S, pregnanetriol and 17 ketosteroid levels are below normal at all times.

Adrenal Insufficiency

A limitation of cortisol biosynthesis is common to all types of CAH. Patients may present soon after birth in adrenal crisis or later in childhood or as hypertensive adults having survived despite their disease. These last patients probably have a very mild enzyme deficiency; however unusual stress, e.g. major illness or surgery, may precipitate adrenal crisis. Once diagnosed, they should be treated as would patients with glucocorticoid deficiency of any etiology. Maintenance glucocorticoid should be supplemented during periods of stress and parenteral glucocorticoids given when oral administration is not beneficial (e.g. while vomiting).

Treatment

Glucocorticoid is given to achieve 3 therapeutic goals: 1) Suppression of mineralocorticoid excess and thus hypertension; 2) Suppression of androgen excess (11 β -hydroxylase deficiency); 3) Correction of cortisol deficiency.

To achieve suppression of mineralocorticoid and androgen excess it is usually necessary to

give a substantial percentage (50-75%) of the total daily intake of corticosteroid as late as possible each night. This will suppress the normal early morning surge in ACTH secretion. The rest may be given in 2 or 3 doses throughout the day. Return of blood pressure to normal and correction of hypokalemic alkalosis should thus be achieved. The adequacy of control is also assessed by following the levels of a previously elevated steroid. Urinary tetrahydro S or pregnanetriol and 17 ketosteroids are usually followed in patients with 11 β -hydroxylase deficiency and urinary pregnanediol in patients with 17 α -hydroxylase deficiency. The minimum glucocorticoid needed to correct these abnormalities is found by adjusting the dose while making the appropriate steroid measurements. The total amount of glucocorticoid required is probably inversely related to the frequency of administration.

When adrenal androgen secretion is reduced, sexual development will proceed normally in prepubertal children with 11 β -hydroxylase deficiency. Corrective genital surgery will be required for some female patients. These patients are capable of childbearing. Patients with 17 α -hydroxylase deficiency require exogenous sex hormones to accomplish sexual development. Menstruation can be induced by cyclical estrogen-progestogen therapy.

As previously noted, these patients have inadequate cortisol production and should be educated in the adjustments of steroid dosage that may be necessary. They should also be advised to carry some identification of their illness at all

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Diabetes Insipidus Secondary To Group B Beta Streptococcal Meningitis

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INTRODUCTION

The occurrence of vasopressin-sensitive diabetes insipidus in neonates secondary to acute bacterial meningitis has not been previously recognized. Deficient or absent ADH release in children and adults has been described as a consequence of many acquired central nervous system lesions, however. Tuberculous meningitis¹, hypothalamic lesions and pituitary tumors,^{2,3,4,5} and neurohypophyseal inflammation⁶ have been reported to be followed by clinical diabetes insipidus. Excessive antidiuretic hormone release has been noted in many of the same conditions.^{7,8,9,10,11,12}

Ability to measure osmolality and the humoral regulators which influence water and electrolyte homeostasis have led to important advances in the understanding of deficiencies and excesses of these factors in central nervous system disease.^{13,14,15} Interrelationships among these regulators are being recognized.¹⁹ With the appearance of newer therapeutic agents which act through pharmacologic enhancement of the release or peripheral action of ADH,²⁰ it may be important to further define deficiency states of this hormone as complete or partial.

This report describes two neonates, who during the course of bacterial (group B beta streptococcal) meningitis, developed hypernatremia secondary to deficient ADH release and their management.

PATIENT REPORTS

Patient 1. A 3175 gram female infant, the product of a 19 year old gravida I, para O, A+ mother whose pregnancy was complicated by premature rupture of the membranes 20 hours prior to delivery. The labor was three hours long, and the mother received 50 mgm. of meperidine three hours prior to delivery. The infant's first breath and cry were delayed thirty seconds, but resuscitation was not required. Apgar scores were 8 and 9 at 1 and 5 minutes respectively. The early neonatal period was uncomplicated, and the infant was discharged home at 3 days of age doing well.

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At three weeks of age, the infant was readmitted to the neonatal intensive care unit with a 6 hour history of irritability and fever. The temperature was 101°F, pulse 144/minute, respirations 44/minute, and blood pressure 60 mm Hg (palpation). On physical examination, a bulging fontanelle, pallor, and extreme hypotonia were noted. The head circumference was 36.5 centimeters. The hematocrit was 31.5%, hemoglobin 11.5 gm%, white blood cell count 32,650/mm³ with a marked left shift. Cerebrospinal fluid examination revealed 222 white cells/mm³ with 35% polymorphonuclear and 65% mononuclear forms, gram-positive cocci on the gram stain, a glucose of 31 mgm%, and a total protein of 160 mgm%. Culture of both the CSF and 3 cc of subdural fluid grew Group B beta streptococcus. Serum chemistries revealed a sodium of 135 mEq/L, chloride 103 mEq/L, potassium 5.8 mEq/L, bicarbonate 22 mEq/L, BUN 17 mgm%, and glucose 77 mgm%. Blood pH was 7.14, pCO₂ 59 mm Hg, pO₂ 50 mm Hg, O₂ sat. 74% (capillary).

Treatment was begun with ampicillin, 200 mgm/Kg/day in four divided doses, and gentamicin, 2.5 mgm/Kg/dose q 8 hours. After receiving culture reports, therapy was changed to penicillin G, 50,000 units/Kg every 6 hours. Initially, there was clinical response to this therapy, and the spinal fluid was sterile at 48 hours.

Seizures developed shortly thereafter, and the head circumference increased to 39 centimeters. Seizures were controlled with phenobarbital and diphenylhydantoin. Neurological consultation was obtained. A ventriculogram revealed a right porencephalic cyst. Subdural punctures revealed a thick, purulent fluid which was sterile on culture.

Four days after admission, the serum sodium was 158 mEq/L, and fluid therapy to correct the hypernatremia was begun. This persisted, however, in spite of intravenous administration of hypotonic fluids, and urine specific gravities were consistently 1.003 or less.

A 6-hour water deprivation test was performed and hourly urines collected via a bladder catheter for osmolality, volume, and bio-assay for ADH. Plasma osmolalities were drawn hourly. The infant failed to respond to dehydration stress by increasing urinary osmolality, and plasma osmolality progressively increased. Results of the study are summarized in Table I. A trial of chlorthiazide therapy failed to improve the polyuria or to change plasma osmolality. Vasopressin, however, caused a marked decrease in urine volume to 8 cc/hour and increase in urine osmolality to 600 mOsm/Kg within one hour. Therapy was then begun with vasopressin with subsequent weight gain and normalization of serum electrolytes.

Patient 2. This female infant was the product of a 15-year-old gravida I, para O, abortus O, B negative mother whose 39-week pregnancy was uncomplicated. The labor was not prolonged, and rupture of membranes occurred eleven hours prior to delivery. Apgars of 9 and 10 were recorded at one and five minutes respectively. The early neonatal period was complicated by mild hyperbilirubinemia (highest level 13.6 mgm%). The birth weight was 3120 grams. The infant was discharged from the term nursery at 5 days of age doing well.

TABLE I
DEHYDRATION STUDY—PATIENT 1

Hour	Weight (Gm)	Urine Volume (ml)	Urine Osmolality (mosm/kg)	Plasma Osmolality (mosm/kg)	Urinary ADH Conc. (uU/ml)
1	3505	20	105	350	
2		20	105		.3384
3		20	106		
4		25	106		1.0088
5		25	110	355	
6		20	120	361	1.5808
7		25	121	360	
8		18	132	360	2.4659
9		18	150	361	
10	3350	18	150	367	6.7094

TABLE II
DEHYDRATION STUDY—PATIENT 2

Hour	Weight (Gm)	Urine Volume (ml)	Urine Osmolality (mosm/kg)	Plasma Osmolality (mosm/kg)	Urinary ADH Conc. (uU/ml)
1	3510	20	110	337	
2		25	110		.4590
3		20	111		
4		20	109		1.5115
5		20	108	337	
6		20	110	339	2.0400
7		18	122	345	
8		25	125	351	2.6074
9		20	130	358	
10	3375	18	158	359	6.7174

The infant was readmitted at three weeks of age with a brief history of fever and irritability, temperature 100°F, pulse 146/minute, respiration 32/minute, blood pressure 80 mm Hg (palpation). Admission blood count revealed a hematocrit of 28.5%, hemoglobin 10.0 gm%, a leukopenia of 1800/mm³ with a left shift. Admission serum sodium was 138 mEq/L. Examination of the cerebrospinal fluid revealed 100 white blood cells/mm³ with 30% polymorphonuclear and 70% mononuclear forms, glucose less than 10 mgm%, protein 330 mgm%, and gram positive cocci on the gram-stained smear.

Therapy was begun with intravenous ampicillin at 200 mgm/Kg/day in divided doses q 8 hours and gentamicin 2.5 mgm/Kg/dose q 8 hours. This was changed to penicillin G at 50,000 units/Kg q 6 hours after both spinal fluid and blood cultures grew Group B beta streptococci sensitive to penicillin G. Because of convulsions, diphenylhydantoin and phenobarbital were begun on the second hospital day. Repeated examinations of the spinal fluid revealed a decreased number of white blood cells, normal glucose, and negative culture, but the CSF protein value remained quite high. Two days after admission, serum electrolytes were re-

peated revealing a hypernatremia of 156 mEq/L without concomitant azotemia. Hypotonic fluid administration failed to affect the hypernatremia, and urine specific gravities remained less than 1.005 consistently. A 6-hour water deprivation test was performed as in Patient 1 and the results are summarized in Table II. This infant also failed to respond to chlorthiazide administration, but responded dramatically to vasopressin with a decrease in urine volume to 5 cc/hour and an increase in urine osmolality to 800 mOsm/kg. She was discharged on vasopressin injections with normal serum electrolytes.

MATERIALS AND METHODS

Urine and plasma osmolalities were done on automatic osmometer. Serum and urinary electrolytes were done by the clinical chemistry laboratory using standard laboratory procedure.

Urinary antidiuretic hormone measurement was performed using a four-point statistical bioassay procedure utilizing changes in urine impedance to standard and unknown injections in alcohol and water-loaded male albino rats.¹³ Extraction and purification of the urine were performed by the method described by Miller and Moses.¹⁴

RESULTS

Results of water deprivation studies are summarized in Tables I and II. A steady state was achieved prior to the beginning of each test by intravenous fluid administration. Both infants failed to concentrate the urine above 200 mOsm/Kg during the standard 6-hour deprivation study. Bioassay of the urines for vasopressin suggested ADH activity to be present in the urine of both cases and to increase during dehydration stress. In addition, both failed to respond to chlorthiazide (50 mgm/Kg/day) given over a forty-eight hour period. After establishment of a steady state and injection of vasopressin, both showed an increase of urine osmolality, a decrease of plasma osmolality, and a reduction of urine volume.

DISCUSSION

Vasopressin-sensitive diabetes insipidus results from partial or complete deficiency of the anti-diuretic hormone. The disease in an infant is a serious challenge to life and future mental function because of the inability to respond to stimulation of the hypothalamic thirst center. Multiple disease states may result in antidiuretic hormone deficiency. Metastatic malignancies, craniopharyngiomas, histiocytosis, optic neuromas, chromophobe adenomas, encephalitis, tuberculous meningitis,²¹ pyogenic meningitis²² and familial

(idiopathic) etiologies have all been described. Transient diabetes insipidus may occur after head trauma and intracranial surgery. The disease is rarely transient, however, when associated with other lesions.²³

It is well-known that disorders of the hypothalamus can produce a variety of abnormalities of endocrine-regulated processes. In addition, disorders elsewhere in the CNS can alter inputs into this area and result in several endocrine dysfunctions. In an extensive review of hypothalamic endocrine disorders, the most common clinical finding was diabetes insipidus.²⁴

Antidiuretic hormone has been shown to be the neurosecretory product of cells of the supra-optic and paraventricular nuclei of the hypothalamus, and destruction of these cells or their physiologic functioning has been proposed as the mechanism of states of deficient ADH release. Neuronal endings in the neurohypophysis release the nonapeptide hormone. These neuronal endings contain oxytocin, antidiuretic hormone, and several other proteins and polypeptides. Neurophysins of several types, varying molecular weights, and varying abilities to bind the hormone probably protect ADH during transport distally from the hypothalamus. A substance capable of the enzymatic destruction of the hormone is present in the hypothalamus, and damage to this area or to the binding of the hormone to its protein carrier may result in destruction of ADH.²⁵

Once released, inactivation of the hormone is probably negligible, and, if there is extensive binding, it must be readily reversible. Metabolic clearance rates are variably reported as 1 ml/min/Kg to 12 ml/min/Kg. Clearance is dual, consisting of renal and hepatic components. The urinary excretion of ADH has been constant in a variety of experiments. Changes in urinary excretion of ADH should, therefore, reflect changes in release since the half-life of ADH has been consistently reported to be brief.²⁶

The factors involved in stimulating release are only partially understood. Verney established an increased rate of release from hyperosmotic stimuli, and a role for volume receptors was recognized shortly thereafter.²⁷ Gauer and Henry showed that such receptors were located in the left atrium, and Share provided direct evidence for their involvement in ADH control.¹⁸ Share has also shown a role for carotid sinus baroreceptors and suggested a role of the renin-angiotensin system in ADH release, but the physiologic

significance of this stimulus is yet to be determined.²⁸

Although disorders of input to the CNS cannot be totally discounted, the evidence that diabetes insipidus following meningitis is hypothalamic or pituitary in origin is quite suggestive. In selective hypopituitarism following tuberculous meningitis, diabetes insipidus (the most common endocrine disorder) was variably combined with gonadal or adrenocortical dysfunction.²¹ In each of these cases, the endocrinopathies followed the meningitis by some months to years. In the majority of cases, there was associated suprasellar calcification.

This is the first report to our knowledge of vasopressin-sensitive diabetes insipidus occurring during the course of neonatal meningitis. In both cases, the etiological organism was the Group B beta streptococcus. In tuberculous meningitis, the affinity of the pathological process for the base of the brain has been suggested as a factor in the subsequent endocrinologic manifestations. The propensity of the streptococcus to involve this area is unknown. The diminished urinary volume and increased urinary osmolality on vasopressin injection in spite of the presence of bioassayable ADH activity in the urine of both infants suggests a partial hormone deficiency state. This most likely resulted from hypothalamic or neurohypophyseal injury secondary to the meningitis.

SUMMARY

Two neonates, who during the course of Group B beta streptococcal meningitis developed vasopressin-sensitive diabetes insipidus, are described. Both infants were studied by a 6-hour water deprivation test with urine and plasma osmolalities and urine volumes measured hourly. Their urine, when bioassayed for antidiuretic activity, revealed some response in both cases.

It is suggested that these infants developed diabetes insipidus secondary to inadequate ADH-release from the neurohypophysis. A propensity of Group B beta streptococcal meningitis in the neonate to involve hypothalamic endocrine regulation centers is thus suggested.

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REFERENCES

1. Todd, RM, and Neville, JG: The sequelae of tuberculous meningitis, *Arch Dis Child*, 39:213, 1964.
2. Crawford, JD, and Bode, HH: Disorders of the

posterior pituitary in children, in *Endocrine and Genetic Disease of Childhood*, Lytt I Gardner (ed). Phila and London: W B Saunders and Co, p 116.

3. Coggins, CH, and Leaf, A: Diabetes insipidus. *Am J Med*, 42:807, 1967.

4. Warkany, J, and Mitchell, AG: Diabetes insipidus in children. *Am J Dis Child*, 57:603, 1939.

5. Killeffer, A, and Stern, WE: Chronic effects of hypothalamic injury. *Arch Neurol*, 22:419, 1970.

6. Saito, T, Yoshida, S, Kiku, N, and Takanashi, R: Chronic hypernatremia associated with inflammation of the neurohypophysis. *J Clin Endocr*, 31:391, 1970.

7. Mangos, JA, and Lobeck, CC: Studies of sustained hyponatremia due to central nervous system infection. *Pediatrics*, 34:503, 1964.

14. Oyama, SN, Kagan, A, and Glick, SM: Radioimmunoassay of vasopressin: its application to unextracted human urine. *J Clin Endocr*, 33:739, 1971.

16. Malvin, RL: Possible role of renin angiotensin system in the regulation of antidiuretic hormone secretion. *Fed Proc*, 30:1383, 1971.

20. Miller, M, and Moses, AM: Mechanism of chlorpropamide action in diabetes insipidus. *J Clin Endocr*, 30:488, 1970.

21. Haslam, RHA, Wenternitz, WW, and Howieson, J: Selective hypopituitarism after cured TB meningitis. *Amer J Dis Child*, 118:903, 1969.

22. Sherman, BW, Gordon, P, Giovanidi, C: Postmeningitic selective hypopituitarism with suprasellar calcification, *Arch Int Med*, 128:600, 1971.

25. Thorn, NA: Antidiuretic hormone: Synthesis, release, and action under normal and pathological circumstances. *Adv Met Disorders*, 4:39, 1970.

26. Lawson, HD: Metabolism of antidiuretic hormone. *Am J Med*, 42:713, 1967.

28. Share, L: Extracellular fluid volume and vasopressin secretion, in *Frontiers in Neuroendocrinology*, ed. WF Ganong and L Martini. New York: Oxford Univ Press, 1969, p 183.

A complete list of references is available from the author.

* * *

Emergency . . .

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lated to high dosage or the eating or injecting of marijuana or to the occasional acute panic reactions occurring at low dosage.

More severe reactions related to "bad trips" with the psychedelic or hallucinogenic drugs may occur. The management of these reactions and their recurrences will require longer term medi-

cal care than is possible in an emergency room and is therefore considered to be beyond the province of this paper.

Through the use of proper first-aid and emergency room procedures and through the cooperation of the National Network of Poison Control Centers in expediting diagnosis and availability of care, it should be possible to salvage the vast majority of acute poisonings.

* * *

Hypertension . . .

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times, e.g. emergency medical identification tags, marked "adrenal insufficiency."

CAH is transmitted by a recessive autosomal gene. The parents of a child with CAH should be cautioned that the chance of having another af-

fected child is 1 in 4 on each subsequent pregnancy.

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REFERENCES

1. Baulieu, EE, Peillon, F, and Migeon, CJ: *Adrenogenital Syndrome in The Adrenal Cortex*, Ed AB Eisenstein, 1967, pp 553-637.

2. Root, AW, Bongiovanni, AM, and Eberlen, WR: *The Adrenogenital Syndrome in The Human Adrenal Cortex*, Ed NP Christy, 1971, pp 427-474.

Cholecystitis, Pericholecystic Abscess, and Septicemia Due To *Clostridium Perfringens*

CASE PRESENTATION

Present Illness: This 45-year-old black male was admitted with a history of weakness, nausea and vomiting of two weeks duration. These symptoms increased in severity so that eventually he was confined to bed, and was unable to retain solid food and only small amounts of liquids. During this same period of time, he developed a severe polyuria. There was no history of hematemesis, melena or diarrhea. There was no family history of diabetes. He had been an alcoholic for the past 20 years, and had several admissions to another VA Hospital for pancreatitis. He had a left below the knee amputation for a gunshot wound in WW II. He had subtotal gastrectomy eight years before, however, he had two abdominal scars and a left thoracotomy scar. He did not know what the second abdominal operation was, or what the thoracotomy was for, and a review of the charts from a distant hospital was non-revealing.

Physical Examination: Temperature 104°, pulse 108, blood pressure 150/90. The patient appeared acutely ill, lethargic, severely dehydrated, with Kussmaul's respirations and the odor of acetone to his breath. The sclerae were icteric; the pupils reacted to light and accommodation. The lungs were clear. The heart was not enlarged; there was a sinus tachycardia. There was a healed surgical incision in the area of the left 8-9 ribs. The abdomen was not distended. The liver was palpable one finger below the umbilicus and tender. No other organs or masses were felt. There were two upper abdominal healed surgical scars. No masses were felt on rectal examination. The neurological examination was within normal limits. The left leg was amputated below the knee.

Laboratory Data: WBC 21,800, 82 neutrophils, 10 bands, 4 lymphocytes and 4 monocytes, RBC 3,331,000, hematocrit 29%, hemoglobin 9 grams. Urine 4+ sugar, 3+ acetone, bile negative, urobilinogen +1:4, CO₂ combining power 5 mEq/L, amylase 145 units, urea nitrogen 31 mgm%, bilirubin total 3.70 mgm%, direct 1.85 mgm%. Total protein 6 Gm., albumin 3.1, alkaline phosphatase 64.7 KA units, transaminase 80 units; chlorides 108, sodium 136, potassium 3.3 mEq/L. Three blood cultures obtained on the second day of hospitalization were positive for *Clostridium perfringens*. A liver scan showed a slightly enlarged liver, with no definite filling defects. The gallbladder was not visualized.

X-rays: Chest—heart normal, lung fields clear. There has been a surgical removal of the 8th rib on the left side with regeneration. Abdomen—normal distribution of gas outlining the colon. The right side of the colon is displaced by an enlarged liver. Opaque medication

is noted in the stomach. A repeat abdominal film on the following day showed the liver shadow enlarged with displacement of the colon. There are several small collections of air in the right upper quadrant. It was difficult to ascertain whether this was free air or, more likely, bowel gas. Cholangiogram showed visualization of the hepatic radicles and common duct, which were not dilated or obstructed. The media passed into the small bowel. Superimposed on the hepatic radicles was a bizarre density which on lateral view proved to be ossification of an abdominal scar. On fluoroscopy the diaphragmatic excursions were normal bilaterally. Flat and upright abdominal films showed moderately severe degenerative changes throughout the lumbar spine. There was a rounded 1 cm. nodular calcification in the right mid-abdomen. Gas was present in the large and small bowel. No definite abnormal abdominal masses were demonstrated, and there were no calcifications regional to the urinary or biliary systems.

Clinical Course: The patient was initially given large doses of insulin and IV fluids. On the second day of hospitalization, his temperature rose to 102°. In view of his blood culture, he was started on 20 million units of IV penicillin daily and gas gangrene antitoxin. His temperature decreased and his alkaline phosphatase began to fall, and came down to 28 KA units. His total bilirubin fell to 1.35 mg% with a direct fraction of 0.55 mg%, and his diabetes remained in good control. His urine was negative for bile and urobilinogen. On his 15th hospital day, an exploratory laparotomy was performed.

CLINICAL DISCUSSION

DR. MICHAEL GOMPERTZ: We might begin with some facets of this case that are clear; i.e., the patient was an alcoholic, he had chronic relapsing pancreatitis which was probably secondary to alcoholism, and he had pancreatic diabetes. Apparently, the diabetes had caused no overt difficulties until an overwhelming infection, *Clostridium perfringens* septicemia, precipitated ketoacidosis.

There are several possible sites of origin of this infection. *Clostridium perfringens* is an anaerobic gram positive rod normally present in the intestinal tract of man and capable of causing gas gangrene in wounds and in areas of tissue damage where there is anoxia, usually as a result of vascular damage and tissue necrosis.

One possibility in this case is a pancreatic abscess following an episode of acute pancreatitis. The amylase is often only slightly elevated in acute attacks in patients with chronic pancreatitis. Of course, this patient was seen late in his course, at which time the serum amylase would be expected to be normal. The fourfold elevation of alkaline phosphatase and mild jaundice are compatible with extrahepatic obstruction due to inflammation of the head of the pancreas. The

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absence of pain is not easy to explain, though cases of "painless pancreatitis" have been reported. In addition, the alcoholism and acidosis may both have contributed to a clouded sensorium, resulting in an inaccurate history. In addition to the lack of pain, the large tender liver is a finding against pancreatitis with abscess formation unless we postulate hepatic involvement due to the infectious process.

Could this patient have had gallbladder disease? The bilirubin of 3.7 and alkaline phosphatase of 64 KA units could easily be explained by extrahepatic obstruction due to common duct stone. Again, the absence of pain is disturbing, but this is by no means rare in common duct stone with obstructive jaundice. However, we are told that an intravenous cholangiogram did not show a dilated common duct and demonstrated normal biliary radicles, though it failed to visualize the gallbladder. In this patient, there are three possible reasons for non-visualization of the gallbladder: (1) acute cholecystitis with cystic duct obstruction, probably due to stone; (2) a recent attack of acute pancreatitis, following which the gallbladder may not be visualized for three or four weeks, though the mechanism for this is not understood; (3) the possibility that this patient's second abdominal operation was a cholecystectomy.

For the sake of discussion, at this point I shall assume that the gallbladder has not been removed. We are told that there are several small collections of air in the right upper quadrant. This might be due to air in the small bowel, gas in the liver from an abscess, an internal biliary fistula, and other causes. One cause is acute emphysematous cholecystitis which is characterized radiologically by a fluid level in the gallbladder on an upright film, or a ring of gas present in the gallbladder on a scout film. A pericholecystic abscess due to gas forming organisms is another possibility. May we see the films now, please?

DR. IRVING K. ETTMAN: The chest film is normal in all respects, except for evidence of a rib resection on the left. An oral cholecystogram shows contrast media in the gastric pouch and non-visualization of the gallbladder. The intravenous cholangiogram shows visualization of a normal common duct on the 2-hour film and some dye entering the duodenum on the 3-hour film. The gallbladder is not visualized. The scout film reveals a soft tissue mass in the right upper quadrant which appears to be liver, and some

areas of gas which are probably in the small bowel.

DR. GOMPERTZ: Then this is not the picture of acute emphysematous cholecystitis.

DR. ETTMAN: That is correct. We see some flecks of air, but I think they are in the small bowel. The characteristic ring of air surrounding the gallbladder in acute emphysematous cholecystitis is not present on these films.

DR. GOMPERTZ: As this patient was treated, he improved remarkably, and there is one point which seems of importance clinically, and that is the change in size of his liver. This was described as large and tender on physical examination and also on the scout film, but only slightly enlarged on liver scan. I think it is fair to assume that the scan was done after the acute episode was subsiding. At the same time, his jaundice was clearing and his alkaline phosphatase was falling. All this taken together could mean relief of common duct obstruction. On the other hand, we see elevations of alkaline phosphatase with space occupying lesions of the liver and the fall of this enzyme and decrease in hepatic size may have been related to decrease in size of a liver abscess. In a report by Sherman and Robbins¹ of 130 patients with all types of liver abscess, *Clostridium perfringens* ranked seventh as a cause. Fourteen of 130 cases were due to this organism, so that it is certainly not rare.

I believe this patient had a liver abscess, but the source of origin is not clear. Initially, I postulated the possibility of a pancreatic abscess secondary to pancreatitis, but believe that such an abscess would most likely be retroperitoneal, and would probably not involve the liver secondarily, though this is possible. In the series of liver abscesses by Sherman and Robbins and in most modern series, well over fifty per cent originate in the biliary tract and are secondary to gallbladder disease. Since we do not know why this patient had two abdominal operations, and his gallbladder did not visualize, I must make a guess as to whether or not he had a cholecystectomy. We know he had a gastric resection, so it is logical to assume that the second scar may have been related to ulcer disease, perhaps an acute perforation which was plicated. Another possibility is that he was operated upon in one of his episodes of acute pancreatitis because a surgical abdomen was suspected. This is all conjecture. Since I must make a decision, I will say that he had acute cholecystitis, probably secondary to a cystic duct stone, that he developed a pericholecystic abscess

and a liver abscess as a result of ascending cholangitis, and a septicemia due to *Clostridium perfringens*. In addition, I think the patient had alcohol induced chronic pancreatitis, pancreatic diabetes, and ketoacidosis precipitated by *Clostridium perfringens* sepsis.

DR. J. M. YOUNG: Do you remember the mortality rate in the series of liver abscesses you referred to?

DR. GOMPERTZ: This was a postmortem study, so that it was 100%. I do not know the mortality in liver abscess in general, but would guess that it is quite high.

DR. JOHN J. McCAUGHAN: I don't understand why you have to postulate a liver abscess in addition to the gallbladder disease, which is sufficient to explain everything.

DR. GOMPERTZ: You are quite right that acute cholecystitis and a pericholecystic abscess alone could cause the entire clinical picture if this resulted in obstructive jaundice and hepatomegaly. In thinking about this case, I was impressed with the fact that a large tender liver reverted to normal size on antibiotic therapy, and that bilirubin and alkaline phosphatase fell at the same time. Thus I assumed that a necrotic gallbladder had formed an abscess in the liver by direct extension and this cleared partially, or mostly, on therapy. However, there was no evidence of this by the time the scan was done. I am probably wrong in postulating abscess formation in the right lobe of the liver.

Clinical Diagnoses

1. Acute cholecystitis with cystic duct stone.
2. Liver abscess with septicemia.
3. Chronic pancreatitis and pancreatic diabetes.

PATHOLOGIC FINDINGS

DR. YOUNG: It is always necessary in cases of sepsis with positive blood cultures to consider the sources which might be the cause. The mortality rate in this type of case is quite high, sometimes running 25 or 30 per cent. This is particularly true in acalculous cholecystitis cases. In acalculous cholecystitis there is usually some common duct abnormality or, as Dr. Gompertz has indicated, there is a fair percentage of cases of chronic pancreatitis. Allergies have been involved in a number of these cases also. I can well recall one case of polyarteritis nodosa that developed an acute acalculous cholecystitis. Malig-

nancies along the common duct or cholecystic duct or even in the proximal end of the gallbladder can set off a situation such as this. The finding of one of the *Clostridium* species in infections of the common bile duct and the gallbladder is certainly not rare. Diabetics are apt to develop these secondary infections.

In our case, the exploration of the common duct was very difficult, but Dr. Bowers did find what he thought was a small gallbladder with a mass of scar tissue around it. He had to remove some of the liver tissue with it. The very small gallbladder did show hemorrhage and inflammation throughout the wall which was relatively thin. Beyond the wall was an abscess cavity containing old blood and pus. At the time of the operation, the common duct was explored. It was relatively small, but thick walled and definitely scarred throughout. It was difficult to enter. There was no purulent material in it at that time, but Dr. Bowers did find a small stone, which no doubt led to the obstruction and cholangitis. A culture taken from the gallbladder at the time of surgery grew out *E. coli*, but no *Clostridia* species. A culture from the common duct was sterile. No stones were present in the abscess. Even though the liver tissue was from near the gallbladder, scarring was limited to the periportal region, and makes one think that there was definitely an element of ascending cholangitis in this case.

DR. GOMPERTZ: You do not really know where that stone came from, do you?

DR. YOUNG: No.

DR. GOMPERTZ: It is possible—I suppose it is possible he had a common duct obstruction due to the stone.

DR. YOUNG: I think he probably did. I do not think there is any question that he had an acute cholecystitis and a local perforation with a lot of necrotic tissue to set up this focus for the gas bacillus infection which he had. This is the usual story.

DR. GOMPERTZ: I surveyed the literature about *perfringens* septicemia. This occurs infrequently in patients who had cholecystectomies done and who had sepsis following this operation. This is a relatively common organism around the biliary tract.

DR. YOUNG: This is particularly true where the common duct has been dilated in the presence of infection.

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Bone Scanning

Since 1917, a wide variety of bone seeking isotopes (Radium, Thorium, ^{140}Ba , ^{45}Ca , ^{47}Ca , ^{144}Ce , ^{72}Ga , ^{68}Ga , ^{198}Au , ^{131}I Fibrinogen, ^{32}P , ^{35}S) have been employed to study bone. While useful information was derived from the use of these isotopes, all of these agents were unsatisfactory for imaging bones, and it was not until 1962 when Blau introduced ^{18}F for bone imaging and 1963 when Charkes and Sklaroff introduced ^{85}Sr and later $^{87\text{m}}\text{Sr}$ that successful bone scanning was possible. Both fluorine and strontium isotopes had the disadvantage of relatively high gamma energy that was not ideal for good collimation. In addition, ^{18}F was difficult to obtain and ^{85}Sr gave radiation doses that were a little high.

In 1971, Subramanian demonstrated that inorganic polyphosphates complexed with technetium 99m that was reduced by tin could be used to image bones. The polyphosphates chemisorb very well to the hydroxy-apatite of bone, and the favorable radiation characteristics of $^{99\text{m}}\text{Tc}$ (i.e. high photon flux, short half-life, and excellent gamma energy level) allow good bone images to be obtained. In 1972, two separate groups reported on the use of organic phosphates (diphosphonates) which could be complexed with reduced technetium 99m and could be successfully used for bone scanning. These agents might have a little better chemical stability in vitro than the polyphosphates (possibly because there are no problems with chain length of phosphate units), they are probably not metabolized in vivo or vitro as is inorganic polyphosphate, and are at least as good if not better in their target to non-target ratio. Technetium labelled pyrophosphates are also being evaluated at the present time.

The present case demonstrating the use of the technetium diphosphonate bone scan concerns a 68 year old white lady who enjoyed good health until eight months ago when a mass was discovered in the left breast. This proved to be carcinoma of the breast and radical mastectomy was

done uneventfully. Two axillary nodes were involved. Five months later the patient developed pain in the right hip. A roentgenographic skeletal survey for metastatic disease revealed metastases to the area. Before instituting x-ray therapy, a bone scan was done (Fig. 1) revealing multiple metastases in L1, L3, L5, T9, T12, right ileum, right femur, skull, one rib, sternum, and left femur. External x-ray therapy to the right hip was then undertaken. The scan was

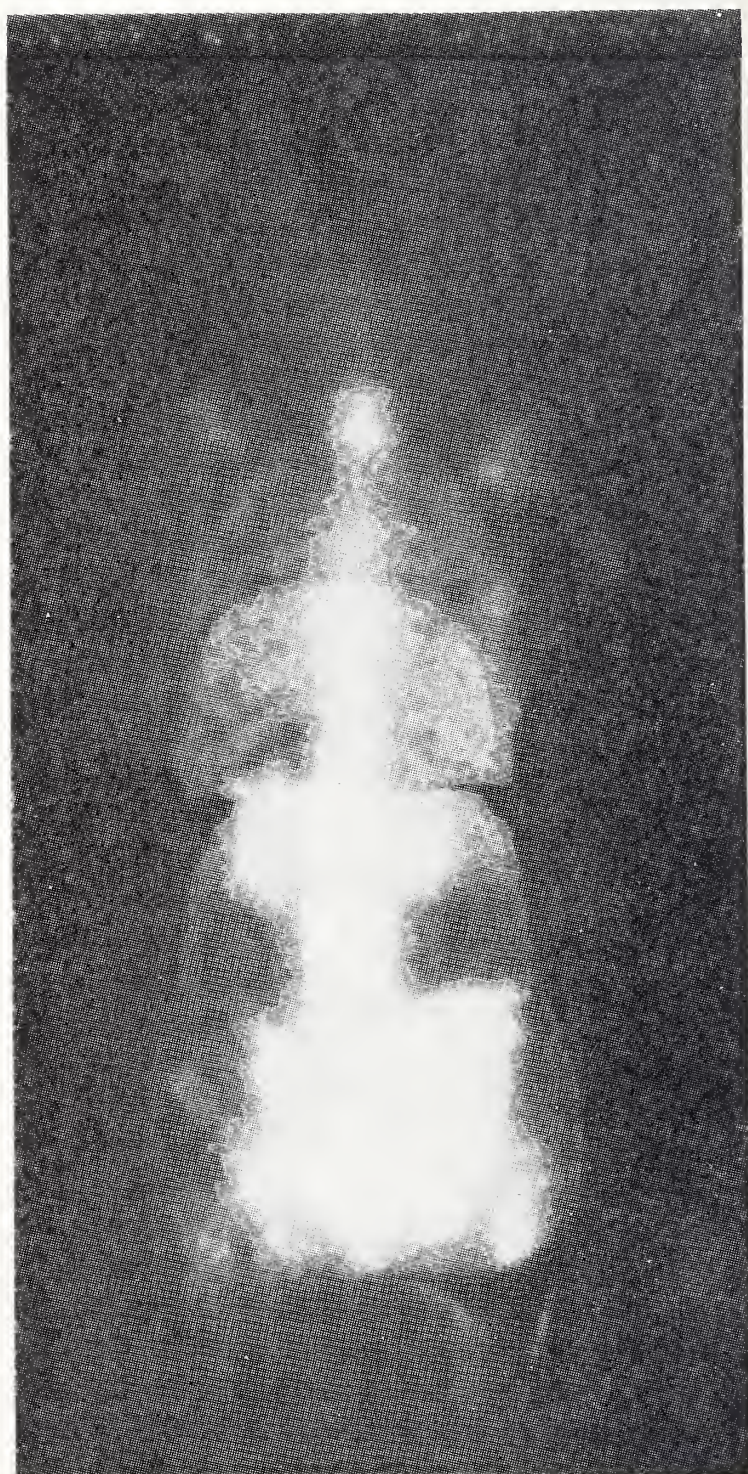


FIG. 1.

From the Department of Nuclear Medicine, Park View Hospital, Nashville, Tenn. 37203.

performed three hours after the IV injection of 10 millicuries of ^{99m}Tc diphosphonate. Radiation to bone and to whole body is significantly less than with ⁸⁵Sr or than is received in a skeletal x-ray survey.

The radiation therapist is often in a dilemma because the technetium diphosphonate bone scan is very sensitive and commonly demonstrates multiple lesions unseen by skeletal x-rays and with no localizing pain. Frequently there are too many lesions to irradiate, and in such cases the radiation therapist may be forced to irradiate only those abnormal regions that are painful.

Because technetium diphosphonate is so much more sensitive than the skeletal survey, many university hospitals are now doing bone scans instead of skeletal series by x-ray and are discovering many more metastatic lesions and discovering them earlier than they were with x-ray. Bone

scanning will steadily increase in use as patients with suspected metastases to bone will be scanned earlier and more frequently in the course of their disease. In addition, better bone scans will eventually be done as bone marrow imaging improves (possibly with Indium ¹¹¹C1) and as new isotopes that seek out bone crystals (Pb, Thallium, Lutecium, etc.) are developed. In addition, there is in these endeavors some serendipity that has been appreciated already and that promises useful agents in the future. Technetium polyphosphate and technetium diphosphonate both localize well in kidneys and have been used very successfully as kidney scanning agents. In addition, different types of organic phosphates which will probably localize in other organs are currently under intensive study as agents that can be labeled with reduced technetium.

ROBERT L. BELL, M.D., *Director*

* * *

CPC . . .

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ANATOMICAL DIAGNOSES

- 1. Acute and chronic cholecystitis with pericholecystic abscess.

- 2. Common duct stone with ascending cholangitis.
- 3. Septicemia due to Clostridium perfringens.

BIBLIOGRAPHY

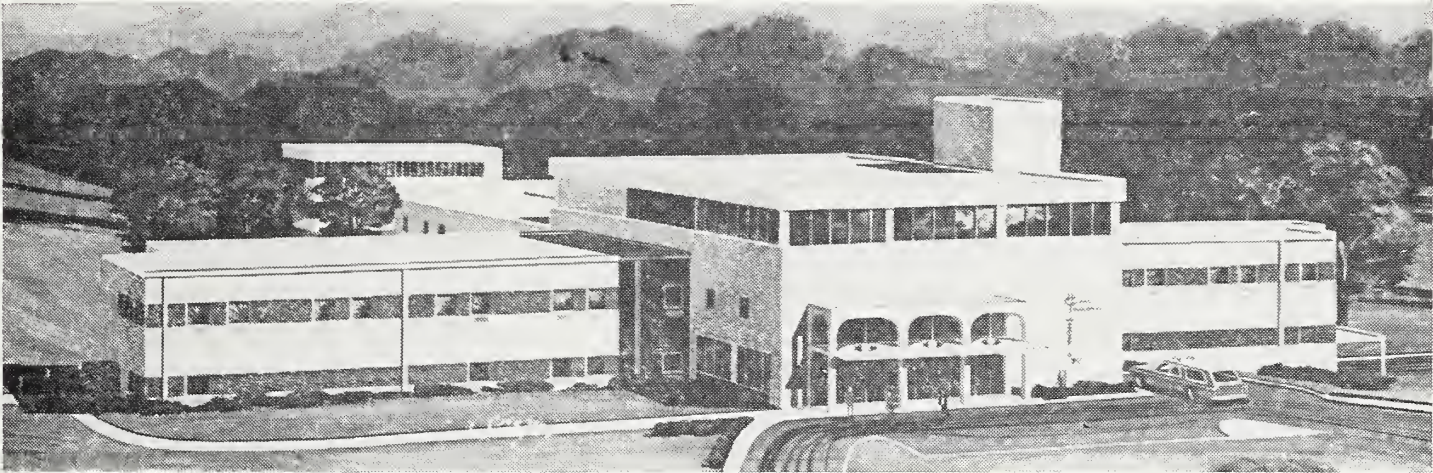
- 1. Sherman, JD. and Robbins, SL: *Am J Med*, 28:943, 1960.

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Interpretations of Serum Lipid Studies

Over the past several years the clinical aspects of hyperlipidemia have been extensively discussed in the medical literature, and the various hyperlipoproteinemia phenotypes have become well known. Interpretation of blood samples sent to the laboratory for a "lipid profile" is, however, frequently confusing and very often misleading. A few simple tests, done properly, are generally all that is necessary to provide much helpful clinical information. Serum (or plasma) cholesterol and triglyceride determinations are essential, although the published "normal" values may in fact be quite different from clinically *desirable* values regarding their importance in cardiovascular disease. Elevation of any of the lipoprotein components (chylomicrons, and beta, prebeta, and alpha lipoproteins) may elevate serum cholesterol, whereas hypertriglyceridemia generally reflects increased chylomicrons and/or prebeta lipoproteins. Visual inspection of the sample should also be done—elevated chylomicrons results in a "cream" layer on the surface; diffuse turbidity generally reflects hyperprebetalipoproteinemia (and therefore hypertriglyceridemia) and elevated beta or alpha lipoproteins produces no turbidity. Lipoprotein electrophoresis is not particularly useful as a screening procedure but provides helpful confirmatory information in the overall evaluation of an abnormal sample. Ultracentrifugation, requiring specialized equipment, is of primary value in confirming type III hyperlipoproteinemia. All tests, of course, are meaningless in the absence of complete clinical historical information and a careful physical examination.

In general, the rare type I pattern shows chylomicronemia without turbidity, high cholesterol, and very high triglycerides; type V is similar but is turbid due to elevated prebeta lipoproteins. Type II shows increased beta lipoproteins and hypercholesterolemia, with either normal (IIa—clear serum) or elevated (IIb—turbid serum) triglycerides and prebeta lipoproteins.

Type III is rare, generally showing fluctuating but elevated cholesterol and triglyceride values, frequently with turbid serum, and an abnormal blurred prebeta-beta region on electrophoresis. Type IV is extremely common, characterized by normal or high cholesterol, very high triglycerides, serum turbidity, and elevated prebeta lipoproteins.

However, the greatest single problem in pattern interpretation and the predominant and all too frequent reason for misleading results of serum lipid analysis in clinical laboratory practice is simply that of improper patient preparation by the managing physician. It is absolutely essential that the patient fast for 12-16 hours prior to sampling; the presence of chylomicrons, for example, in a non-fasting sample may or may not be of clinical significance, and is meaningless. The patient must be in a period of caloric stability for at least two weeks, with neither recent weight gain nor loss. There must be no acute stress, illness, or trauma; following myocardial infarction at least three months should elapse prior to lipid study. Estrogenic steroid preparations and pregnancy may greatly alter serum lipid levels, resulting in meaningless patterns. Many disease states will alter lipid and lipoprotein patterns ("secondary" hyperlipoproteinemias) and must be treated and controlled for proper lipid evaluation; such disorders are, for example, thyroid disease, diabetes, alcoholism, hepatic disease, pancreatitis, nephrosis, and the dysproteinemias. Age must also be considered, the "normal" serum lipid levels increasing slightly with advancing age. Finally, numerous technical artifacts may distort the electrophoretic pattern and give misleading results, such as bacterial contamination, old sera, and repeated freezing and thawing of a specimen.

Thus all the above factors must be considered in the evaluation of a patient for a primary, heritable, familial lipid abnormality with its therapeutic, prognostic, and genetic implications. And, in fact, there is a growing opinion today that of even greater importance than lipid analysis of a particular patient in this regard is the thorough study of the variations of lipid levels of the family members and close relatives of such a subject. Without such an effort, the diagnostic value of the "lipid profile" for *primary* hyperlipoproteinemia is limited.

From the Department of Pathology, Methodist Hospital, Memphis, Tenn.

DEAN G. TAYLOR, M.D.



from the tennessee department of mental health

The Computer Comes To Mental Health

As part of a continuing effort to improve the quality of patient care and management, the Department of Mental Health has installed a highly sophisticated computer based Clinical Information System designed to provide accurate daily census data, patient tracking and patient progress, drug control, and records of direct services. The new Information System is providing a valuable assist to clinicians, ward personnel, and hospital administrators and their staffs. Additional accounting and administrative sub-systems will soon be added.

Through the use of the computer, medical records take on greater sophistication and accuracy; information is more readily retrievable, daily instructions are provided to ward personnel relative to individual treatment plans, and administrators receive daily census reports which include patient status reports and movement within the hospital.

In addition to the direct clinical applications, the computer can be used for an almost unlimited statistical examination of the patient population; geographic areas of higher referrals, or particular diagnoses can be identified, as well as socio-economic characteristics. Age, sex and racial factors can be determined and cross tabulated with a wide variety of other variables. The data base makes it possible to analyze patterns of facility utilization which will be helpful for both planning and evaluation.

The computer also provides a basis for the evaluation of the various treatment modalities, drugs, individual clinicians, and the overall effectiveness of each of the Psychiatric Hospitals and Developmental Centers.

The Tennessee Information system is an adaptation of the Multi-State Information System (MSIS) which was developed over a five-year period at a cost of more than \$10,000,000 at Rockland State Hospital in Orangeburg, New York. Financed by the National Institute of Mental Health, MSIS provides on-line computer service to a number of State Mental Health Departments, principally in the North East.

The basic MSIS soft-ware package has been modified for use on Tennessee's Department of Finance and Administration operated central computer installation. Terminals which communicate with the central computer through teleprocessing have been installed in each of the Mental Health Department's five psychiatric hospitals and three Developmental Centers. Eventually these terminals will also be available to support the community based programs in the hospitals' service area.

Responsibility for developing the Information System is vested in the Assistant Commissioner for Planning and Program Coordination, J. Frank Dearnness, who also serves as Tennessee's liaison with the Multi-State Information System at Rockland State Hospital. A new section has been established within the Division to carry out the Department of Mental Health's mission in the area of computer systems—The Management Systems Services Section under the direction of Parker Sherrill.

Major innovations, which will later be adopted by a number of other states across the country, are being added by Tennessee to the basic MSIS package. Among these are a specialized system designed for Mentally Retarded Clients and a Hospital Billing and Accounts Receivable System (HBARS). HBARS will greatly improve the Department's ability to generate and follow through with its billings in a more timely fashion.

Confidentiality of patient records remains as a major concern of the Department. Many safeguards have been built into the system to prevent access to patient information by anyone other than authorized personnel. While a central computer is used for data processing, it is not possible for one hospital to gain access to another hospital's medical records. It is possible, however, to work with the statistical data base without identifying any individual patients.

The Department's new Information System has great potentials for future development. Under the leadership of Mr. Dearnness and Mr. Sherrill, a variety of possible future uses of the System have been identified. Among the more significant of these are: A problem/goal oriented record in

continued on page 130

TMA X-ray of the month

History:

This 41-year-old white male chronic alcoholic was admitted to the hospital with a chief complaint of right hand tremor of six months' duration and gait unsteady-

contributing factor to the patient's presentation for medical assistance was his desire to enter an alcoholic rehabilitation program.

Examination:

General physical examination was unremarkable. Neurologic examination revealed a cerebellar intention tremor of the right upper extremity. The patient had a mild ataxic gait. The right upper and lower extremities were slightly hypotonic, although deep tendon

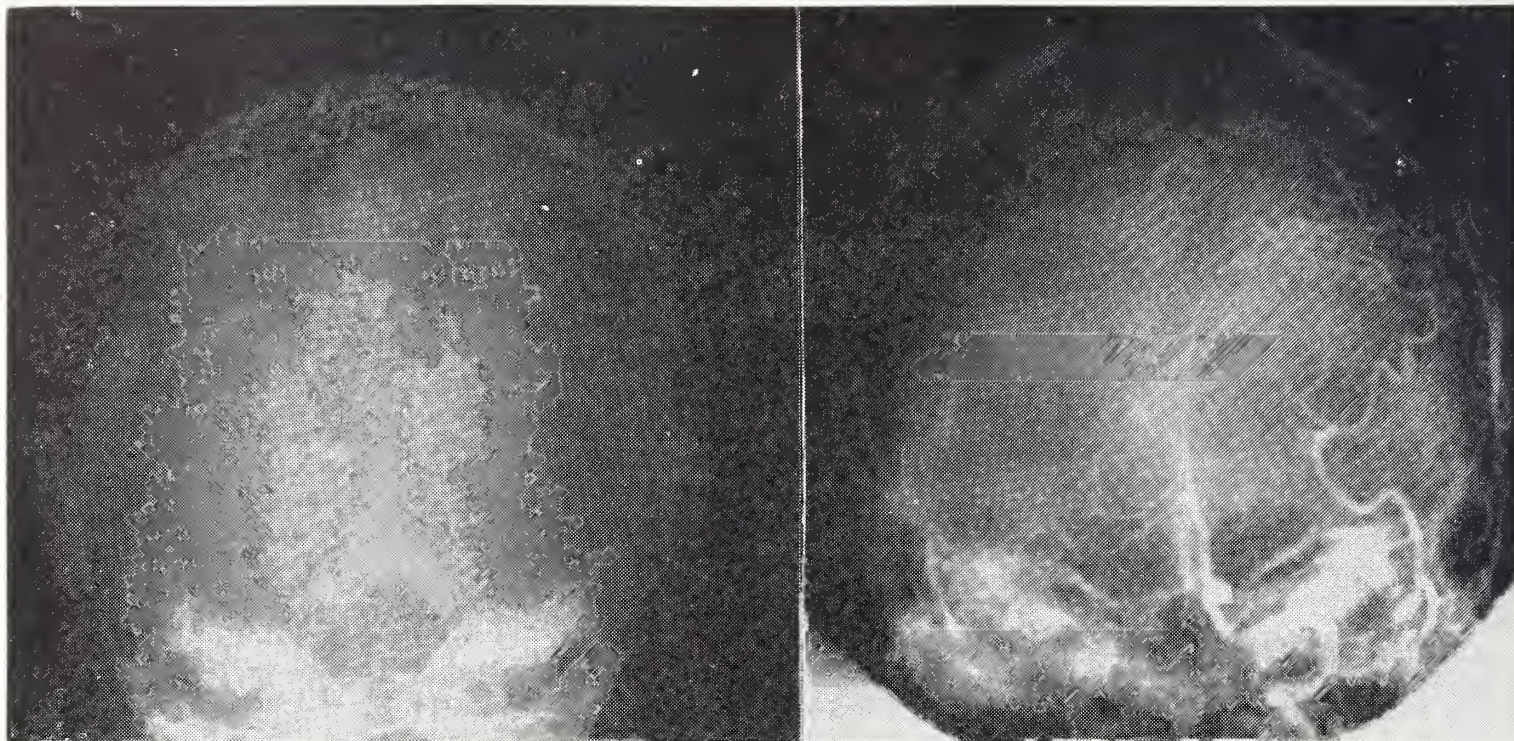


FIG. I—left—Towner's view.
right—AP left common carotid angiogram.

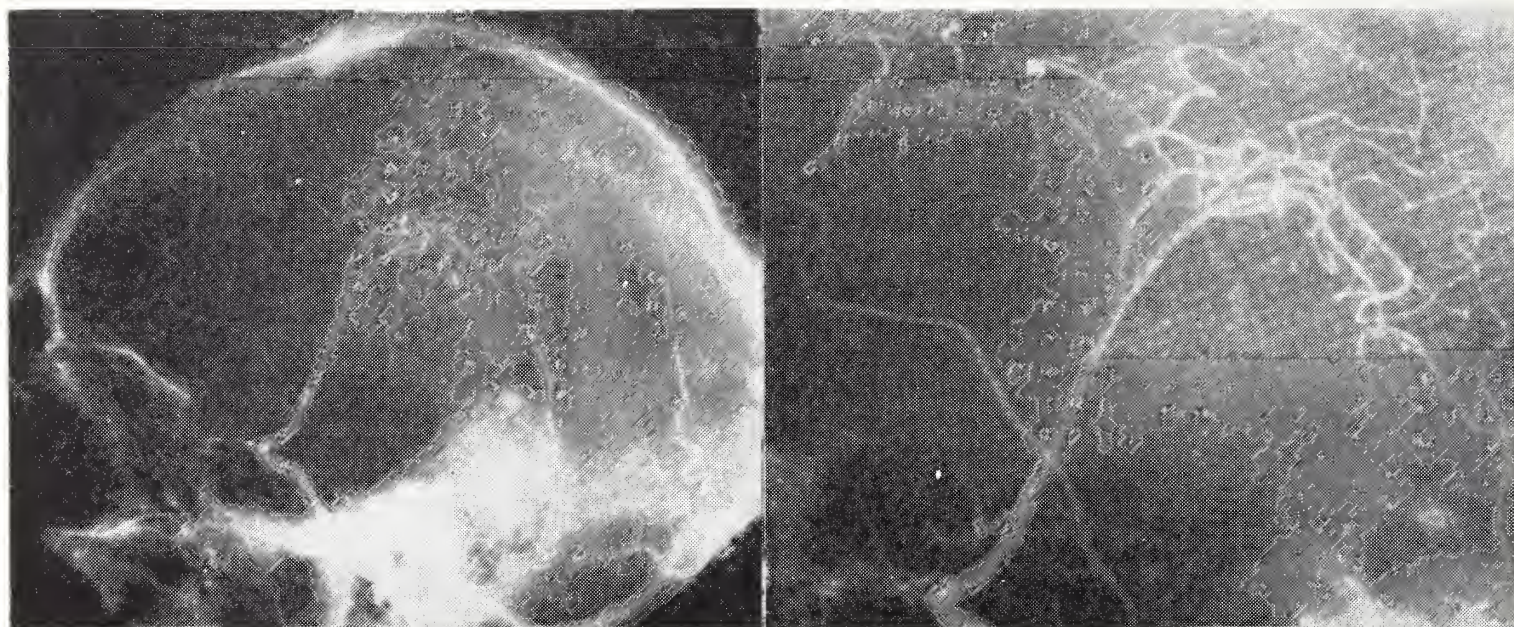


FIG. II—left—Lateral left common carotid angiogram.
right—Magnification.

ness. The patient had no other complaints and the remainder of his history was uninformative. A major

From the Department of Radiology, Vanderbilt University Hospital, Nashville, Tenn. 37232.

reflexes were equal and normal bilaterally. Pain, touch and vibratory sensations were intact. Fundoscopic examination revealed very early changes of papilledema. The mental status examination revealed marked deficiency in recent memory and a slowing of mentation.

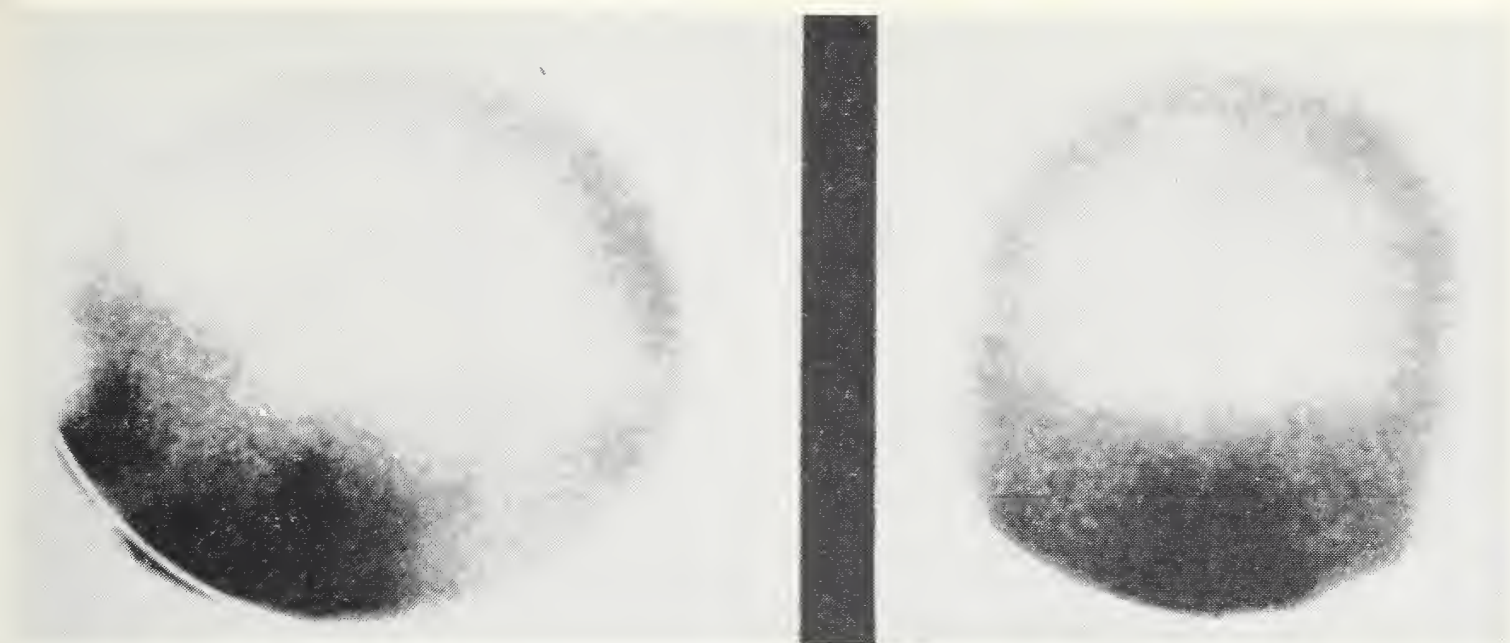


FIG. III—Lateral and anterior brain scan.

Radiologic Findings:

Skull film: (Figure I-a) There is a 1 cm. left to right shift of the calcified pineal, indicating a large supratentorial left hemispheric mass. There is minimal thinning of the cortex over the dorsum sellae. No abnormal intracranial calcification is seen.

Left carotid arteriogram: (Figures I-b, II-a & b) There is marked medial and upward displacement of the middle cerebral artery and its Sylvian branches. The main middle cerebral trunk is displaced almost to the midline. The anterior cerebral artery and internal cerebral vein (in the roof of the third ventricle) are displaced 2 cm. to the right of midline. Magnification views show irregular narrowing of the middle cerebral artery indicating encasement and/or stretching. Notably, there is no tumor stain or AV shunting. The meningeal vessels are normal in caliber and course. The appearance is that of a large, avascular left middle fossa mass.

Brain scan: (Figures III-a & b) The brain scan showed a slight increased activity over the high left convexity seen only on the frontal view.

Radiological Diagnosis:

The avascularity of the lesion, absence of uptake on scan and normal meningeal vessels exclude meningioma. The minimal clinical findings, together with the massive size and avascularity of the lesion, indicate a process that has been present for a considerable period of time. Glioma, subdural hematoma, epidural hematoma, abscess, sarcoma and metastatic tumor are therefore all

extremely unlikely. Absence of calcification and bone destruction, together with lateral location, rules against but does not exclude chordoma. On this basis, the pre-operative diagnosis of epidermoid or dermoid inclusion cyst was made.

Surgical and Pathologic Report:

A large, cheesy, white mass characteristic of an epidermoid cyst was found embedded in the left temporal lobe causing marked thinning of the cortex. The tumor encased the middle cerebral artery. No communication with the ventricular system or extension into the posterior fossa was observed. Removal of the entire lesion intact was not possible. The cyst substance removed piecemeal filled an emesis basin. The entire lesion including its capsule was ultimately removed.

Final Diagnosis:

Intracerebral epidermoid.

Discussion:

Intracranial epidermoid and dermoid sequestration (inclusion) cysts are not neoplasms. Their origin is felt to be from inclusion of ectodermal elements during fetal life.⁶ These lesions have also been called "pearly tumors" and cholesteatomas.⁷ They bear no relationship to chronic inflammatory cholesteatomas of the middle ear,^{2,4} nor are they related to the ovarian, mediastinal, pituitary or pineal teratomas and dermoids, which are true neoplasms of germinal layers.⁴ The cysts are lined by stratified squamous epithelium and supported by an outer collagenous tissue capsule.

Slowly progressive expansion results from central exfoliation of keratinized material. This material gives the typical white, cheesy appearance to epidermoid cysts. If the cyst contains hair, teeth, or other dermal elements it is classified as a dermoid and generally contains a buttery, yellow fluid. Epidermoids represent between 0.2 and 1 per cent of all intracranial tumors.² They occur to one side of the midline, the most common locations being the CP angle, parapituitary, temporal lobe, and third and fourth ventricle.^{1,2,3} When located in the temporal lobe as in this patient, they may become very large and are frequently embedded in the temporal lobe itself. Epidermoids present later in life clinically than dermoids, having a peak incidence in the fifth decade. Intracranial dermoid cysts are much more rare and the true incidence is difficult to establish.⁶ They tend to be midline lesions, most commonly presenting as defects in the occipital bone associated with an overlying dermal sinus in the skin and frequently, a posterior fossa cyst which may extend into the fourth ventricle.

If the cyst wall is not intact, air extends into the crevices of its content at pneumoencephalography, producing a pathognomonic bubbly appearance.⁴ Granulomatous meningitis may follow rupture of the cyst into the ventricle or subarachnoid space.⁶ As in this patient, symptoms may be minimal. Clinical findings frequently underestimate the size and extent of the lesion. Dementia, seizures and long-standing isolated cranial palsy have been described as common presentations.⁸ Dementia is related to the degree of hydrocephalus, which may be produced by mass effect or by fragments of the lesion blocking the CSF pathway.

The most common location of an epidermoid in the skull is the diploic space of the bony calvarium. In this location, they are frequently discovered as a lucent defect with scalloped, sclerotic margins, incidental to skull films obtained

for other reasons. Surgical removal is recommended by some because of an inability to exclude intracranial extension.

Intraspinal lesions are more commonly dermoids than epidermoids. The lesion can be suspected pre-operatively, given a history of previous faulty lumbar puncture, long duration of symptoms, diffuse enlargement of the spinal canal over several segments on X-ray, spina bifida occulta, or persistent pilonidal sinus.⁵

Removal of the entire cyst wall and its content is the treatment of choice.² In some instances, conservative surgical approach is justified since the lesion will require many years to recur despite incomplete removal.

In the case presented, the entire cyst and its contents were removed, despite the enormous size of the lesion and encasement of the middle cerebral artery. The patient had an uneventful recovery and was discharged with no neurologic deficit.

REFERENCES

1. Baumann, Carl HH, and Bury, PC: Paratrigeminal Epidermoid Tumors. *J of Neurosurg*, Vol 13:455-468, 1956.
2. Grant, FC, and Austin, GM: Epidermoids: Clinical Evaluation and Surgical Results. *J of Neurosurg*, Vol 7:190-198, 1950.
3. Keville, FJ, and Wise, BL: Intracranial Epidermoid and Dermoid Tumors. *J of Neurosurg*, Vol. 16: 564-569, 1959.
4. Pear, BL: Epidermoid and Dermoid Sequestration Cysts. *AJR*, Vol 110, No 1:148-155, September, 1970.
5. Reeves, DL: Epidermoid (Mixed) Tumors of the Central Nervous System. *J of Neurosurg*, Vol 26:21, January, 1967.
6. Russell, DS, and Rubinstein, LJ: *Pathology of Tumors of the Nervous System*. Edition 2, Baltimore, The Williams and Wilkins Company, 1963, 3rd Edition, 1971.
7. Slager, UT: *Basic Neuropathology*. Baltimore, The Williams and Wilkins Company, 1970.
8. Ulrich, J: Intracranial Epidermoid. *J of Neurosurg*, Vol 21, No 12:1051-1058, December, 1964.

* * *

From the Dept. of Mental Health . . .

continued from page 127

which treatments and therapeutic goals are associated with specific patient problems; a program evaluation package for monitoring the performance of mental health programs and to assure equity of service among ethnic groups, continuity of care and availability of service; utilization review systems; a computer diagnosis and treat-

ment plan and a clinical "inferential monitor" which can examine a patient's record on a problem basis to distill a progress abstract.

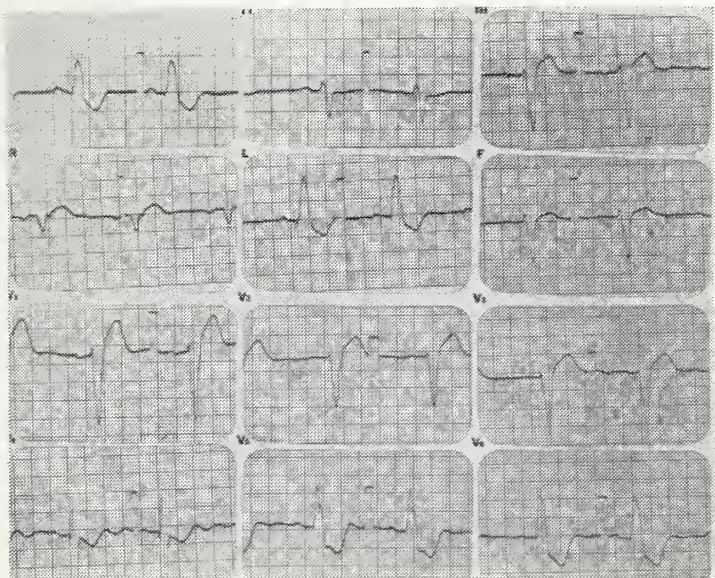
With the strong support of Commissioner Treadway, the Tennessee Department of Mental Health is assuming a national leadership role in expanding computer application for improving mental health patient care and the management of mental health facilities.

TMA EKG of the month

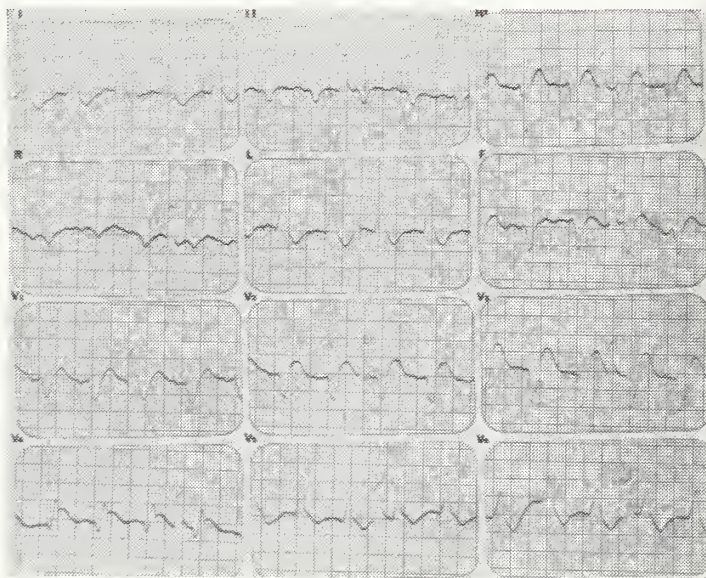
HISTORY

This 52-year-old gentleman has a history of hyper-

tension and exertional angina pectoris. His electrocardiogram (ECG) has been abnormal due to left bundle branch block (LBBB) for several years. He was admitted to the coronary care unit because of persistent chest pain and was suspected of having suffered an acute myocardial infarction. His clinical course and serum enzymes supported the admitting diagnosis. His ECG's at the time of admission (A), the day after admission (B) and six days after admission (C) are illustrated.



A



C



B

DISCUSSION

The ECG diagnosis of myocardial infarction is based on the premise that the myocardium is electrically stimulated in a predictable manner as a reference for deviations in QRS morphology. In LBBB electrical stimulation is so profoundly altered that the expected deviations are not usu-

ally observed. The ability to read myocardial infarction, chamber enlargement, etc. in the presence of LBBB remains a controversial subject in ECG and vectorcardiographic literature. Although it has long been recognized that transient ST segment shifts may occur in patients with LBBB during acute myocardial infarction, this phenomenon is infrequently documented. In the above illustrations, it would be impossible to diagnose an acute intermediate event if given only the admitting (A) and follow up (C) ECG's. However, during the height of clinical symptoms and enzyme rises (B) an easily recognizable anteriorly directed ST segment shift is documented and is typical of that seen in anterior septal myocardial infarction in the absence of LBBB. It can be predicted from this series of ECG's that angiography would reveal disease of the anterior descending artery and probably of the anterior septal left ventricular wall.

Final diagnosis: Left bundle branch block
Acute anterior myocardial infarction

HARRY L. PAGE, JR., M.D.
W. BARTON CAMPBELL, M.D.
Co-directors

From the Department of Cardiology, St. Thomas Hospital, Nashville, Tenn. 37203.



self-evaluation quiz

VENEREAL DISEASE, DIAGNOSIS, TREATMENT AND CONTROL

(This test was written for statistical purposes only and was designed to determine the scope and adequacy of venereal disease training the new medical officers had received prior to entering military service.)*

Multiple Choice

1. With a low titred VDRL test, a patient with no clinical evidence of syphilis may:
☐ A. Have syphilis and was never treated or was inadequately treated.
☐ B. Have had syphilis and was successfully treated at some time in the past.
☐ C. Have a biologic false positive test.
☐ D. All of the above.
2. The term treponemal serologic test refers to the fact that the antigen used in the testing is either a treponeme or a product derived therefrom. One of the following, however, utilizes living organisms in the actual test. Which one:
☐ A. FTA
☐ B. TPI
☐ C. RPCF
☐ D. Kolmer
3. In determining whether or not CNS syphilis is active, the most important spinal fluid finding is:
☐ A. Reactivity of the VDRL test
☐ B. Protein
☐ C. Cells
☐ D. Colloidal gold curve
4. To cover all possibly infected contacts, patients with secondary syphilis should be interviewed for sexual contacts of the past:
☐ A. One month
☐ B. Three months
☐ C. Six months
☐ D. Twelve months
5. About one-fourth the patients with a primary syphilis lesion will have a non-reactive serologic test for syphilis. Therefore, the only *absolute* method of diagnosis is:
☐ A. History of sexual contact
☐ B. Clinical characteristic of the lesion
☐ C. The darkfield examination
☐ D. Establish diagnosis of syphilis in a sexual contact
6. Infectious mononucleosis and syphilis may have all of the following signs or symptoms in common except:
☐ A. Positive heterophil antibody test
☐ B. Reactive serologic test for syphilis
☐ C. Low grade fever and generalized rash
☐ D. Generalized lymphadenopathy
7. A woman in her third month of gestation is found to have a reactive VDRL 1:1. A search of her medical history revealed that she had Bicillin four years previously for diagnosis of latent syphilis. At that time VDRL was 1:8. At follow-up examination one year later the titre was 1:1 and all physical findings negative. The physician managing this patient should:
☐ A. Treat immediately to avoid congenital syphilis
☐ B. Do a spinal tap
☐ C. Document the adequacy of past treatment and follow carefully
☐ D. Ask for a FTA-ABS
8. The most important reason for the difficulty in gonorrhea control is:
☐ A. At present no epidemiology is being applied
☐ B. The N. gonorrhea is becoming resistant to penicillin
☐ C. In females the disease by and large is asymptomatic
☐ D. Diagnostic tests in the female are limited
9. The most accurate and practical diagnostic test for gonococcal urethritis in the male is:
☐ A. Gram stain of urethral exudate
☐ B. Culture using Thayer-Martin medium
☐ C. Culture using conventional GC base media
☐ D. Fluorescent antibody
10. The primary lesion in lymphogranuloma venereum is an evanescent:
☐ A. Inguinal adenitis
☐ B. Papule or vesicle
☐ C. Ulcer
☐ D. None of these
11. The incubation period for symptoms of acute chancroid infection in the male is:
☐ A. 3-5 days
☐ B. 2-14 days
☐ C. 7-21 days
☐ D. 10-90 days

*This is a copy of the Army VD Quiz which was submitted for publication by Col. Jérôme H. Greenberg, M.D., Director of Health and Environment for the U.S. Surgeon General's Office.

True/False

12. Darkfield examinations of the rectum and anus are not necessary and difficult because of other treponemes present in the rectum.
() A. True () B. False
13. *Epidemiologic treatment* refers to the treatment of *bona fide* sexual contacts to infectious syphilis who may or may not be in the prodromal or incubating stages of disease.
() A. True () B. False
14. Gonorrheal infections have been shown to be asymptomatic in 10-15% of male cases.
() A. True () B. False
15. Initial treatment of acute gonorrhea in the female who is not sensitive to penicillin is 4:8 million units of benzathine penicillin.
() A. True () B. False
16. Syphilis is communicable during the second stage.
() A. True () B. False
17. Congenital syphilis results from prenatal transmission of spirochetes from mother to fetus in the first three months of pregnancy.
() A. True () B. False
18. Chancroid is a self-limited infection.
() A. True () B. False
19. The treatment of choice for chancroid is sulfasoxazole.
() A. True () B. False

20. In male gonorrhea any urethral discharge three days after appropriate initial treatment means the patient should be retreated with the same regimen.
() A. True () B. False

*Match the Appropriate Number.
An Item May Be Used More Than Once*

- A. Syphilis
B. Gonorrhea
C. Chancroid
D. Lymphogranuloma Venereum
E. Granuloma inguinale
21. () Ulcer with clean base and indurated edges
22. () Penile ulcer with ragged edges, dirty gray base
23. () Large, friable ulcerated areas with beefy red base
24. () Purulent urethral discharge
25. () Rectal stricture
26. () Purulent arthritis
27. () Frei test
28. () Penicillin and Probenecid
29. () Multiple sinus tracts

(Answers on page 157)

* * *

Surgeons and Hepatitis

Doctor Sheilda Sherlock, Chairman of the Department of Medicine of the Royal Free Hospital, University of London, and an authority on hepatitis, has cautioned surgeons that they run the risk of contracting hepatitis in operating on infected patients. One prominent Rhode Island surgeon succumbed to an acute fulminating hepatitis following a finger prick while operating on a much transfused patient. Another, a victim of post-necrotic liver degeneration several years after an acute hepatitis, may have been similarly exposed.

Sherlock observed that cases of infection in surgeons following cuts and punctures in the operating room are well known. According to the literature, she notes, 35 per cent of all gloves are found to be ruptured at the end of an operation, while the incidence rises to 85 per cent for operations lasting over an hour. She has asked glove manufacturers to attempt to develop gloves that are less vulnerable, but this is obviously a difficult task. Wire sutures are a particular hazard, and should, she believes, be avoided. Their special properties, however, make them valuable in certain situations, although the advent of non-reactive plastic sutures may render them less essential in most circumstances.

With discovery of the hepatitis B antigen, a marker for the presence of virus in both patient and surgeon is now available. The fact that surgeons are contracting the virus from patients recently has been confirmed by this means.

Besides the well established modes of transmission by syringes, needles, and blood transfusions, Sherlock has probably unlocked another mystery of serum hepatitis by suggesting that mosquitoes can transmit type B hepatitis and probably help perpetuate the reservoirs, particularly in underdeveloped countries. Toothbrushes, shaving brushes, or anything else that might transmit blood should also be suspect.

She admits that ultimately she does not have the answer for the protection of surgeons. "Try not to cut yourselves," she says, "and I don't have the answer to this. I think something will have to be done about giving better protection during operations."

A rather discouraging prospect, no doubt, but surgeons live daily with danger.

Reprinted from the *Rhode Island Medical Journal*, Nov., 1973

Diagnostic Patterns in Disability Tennessee and the Nation

JAMES C. GARDNER, M.D.

This short statistical analysis of data compiled by the Social Security Administration shows the extent and nature of Tennessee's participation in the social security disability program. It compares some of the state's data with national averages, and includes a comparison of worker disability allowances by diagnostic groups for Tennessee and the U.S. overall.

Under the provisions of the Social Security Disability Program, the nation's largest disability plan, a worker under 65 can receive monthly benefits if he or she becomes unable to work due to a mental or physical impairment that has lasted—or is expected to last—at least 12 months or is expected to result in death.

More than 96 million workers can count on monthly cash benefits in the event of such severe and extended disability. In addition, the dependents of these workers are also eligible for monthly benefits. Over 1.8 million workers and 1.4 million dependents are now receiving disability benefits at the rate of almost \$5 billion a year.

Currently, 44,166 disabled workers in Tennessee are collecting \$7,271,263 a month in benefits. In addition, 9,857 wives or husbands of disabled workers and 28,243 children of disabled workers in Tennessee are receiving \$488,948 and \$1,254,967, respectively.

The latest year for which tabulated data are

From the DISABILITY DETERMINATION SECTION, Division of Vocational Rehabilitation, Tennessee Department of Education, 1808 West End Bldg.—7th Floor, Nashville, Tenn. 37203.

available showing disabled worker diagnostic patterns by state is 1970. Disabled workers in Tennessee who began receiving benefits in that year constituted 8,052 of the 350,384 new beneficiaries nationwide.

Table 1 compares the frequency of diagnostic groups in Tennessee with the U.S. overall. It shows that diseases of the circulatory system comprised the largest diagnostic group in the country in 1970. Diseases of the musculo-skeletal system and mental disorders, including psychoneurotic and personality disorders, were the second and third largest diagnostic groups, respectively. All states do not, however, follow this pattern.

Within these overall diagnostic groups, the most prevalent primary diagnosis in both Tennessee and the nation in 1970 was chronic ischemic heart disease. Tennessee recorded 1,523 cases in that year. The nation's second most common primary diagnosis, schizophrenic disorders, accounted for 353 cases in Tennessee. Following these, in order of decreasing national prevalence, were osteoarthritis and allied conditions, with Tennessee reporting 299 cases; emphysema, 376 cases; displacement of intervertebral disc, 259 cases in Tennessee; diabetes mellitus, 183 cases; and rheumatoid arthritis and allied conditions, 243 cases. Cerebro-vascular disease, listed eighth among the most prevalent primary diagnoses in 1970, recorded 230 cases; and neuroses ranked tenth with 226 cases.

Additional information about the social security disability program may be obtained from the Division of Vocational Rehabilitation.

TABLE 1. Social Security Worker Disability Allowances 1970—Diagnostic Groups

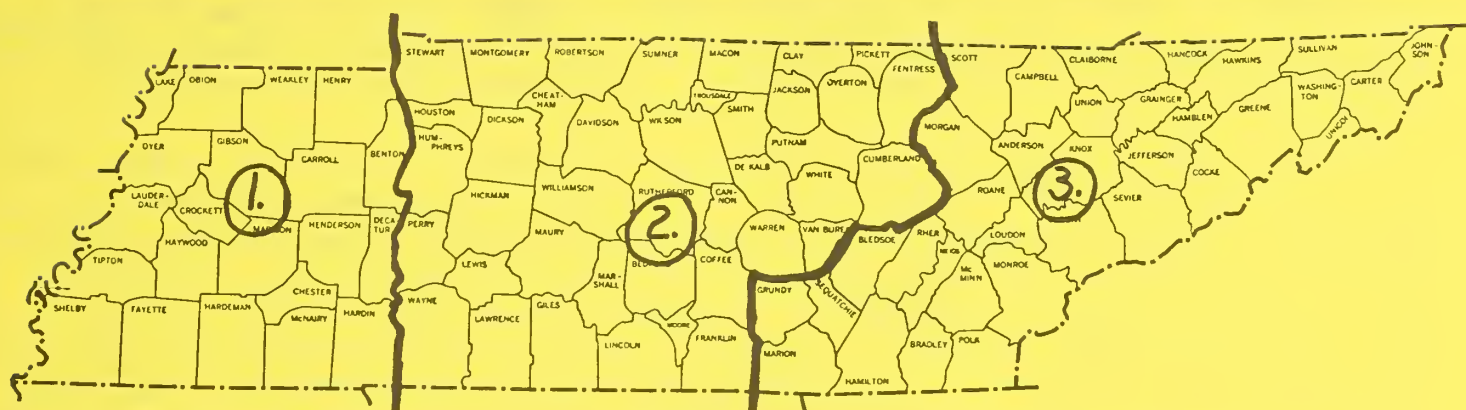
DIAGNOSTIC GROUP		U.S.		TENNESSEE
Diseases of the circulatory system	108,906	31.1%	2662	33.1%
Diseases of the musculo-skeletal system	52,086	14.9%	1100	13.7%
Mental, psychoneurotic, and personality disorders	38,406	11.0%	1003	12.5%
Neoplasms	36,095	10.3%	746	9.3%
Accidents, poisonings, and violence	28,231	8.1%	613	7.6%
Diseases of the respiratory system	24,254	6.9%	606	7.5%
Diseases of the nervous system and sense organs	22,575	6.4%	447	5.6%
Allergic, endocrine system, metabolic, and nutritional diseases	13,141	3.8%	251	3.1%
Diseases of the digestive system	9,051	2.6%	211	2.6%
Infective and parasitic diseases	8,760	2.5%	190	2.4%
Other	8,875	2.5%	223	2.8%
TOTAL	350,384	100.0%	8052	100.0%

from the
executive
director

J. E. BALLENTINE

MEDICAL DIGEST

NEWS OF INTEREST TO DOCTORS IN TENNESSEE



HEW DESIGNATES THREE PSRO AREAS FOR TENNESSEE . . . The Office of Professional Standards Review has chopped Tennessee into three areas for Professional Standards Review Organizations. The three area designations are Area 1—West Tennessee to the Tennessee River; Area 2—Middle Tennessee from the Tennessee River to the Cumberland Plateau; and Area 3—From the Cumberland Plateau, all the rest of East Tennessee . . . The above map designates the boundaries of the three areas, and they almost entirely coincide with the boundaries of the three grand divisions of the State . . . HEW designated twenty-five of the smaller states as statewide PSRO areas . . . The proposal submitted by the Tennessee Foundation for Medical Care, Inc., formed by the Tennessee Medical Association, recommended that all of Tennessee be one PSRO organization. This was rejected by HEW.

* * * * *

STRONG FORMAL PROTEST MADE TO HEW . . . On January 4, a letter from the President of TMA was forwarded to the Director of the Office of Professional Standards Review, protesting the area designations for Tennessee, as published in the Federal Register of December 20, 1973 . . . The protest strongly states the unsatisfactory, unworkable area designations made by HEW. The areas are mainly artificial boundaries with respect to medical practice, medical affiliation, and medical cooperation . . . The letter strongly called for immediate reconsideration of the Tennessee area and again urged that Tennessee be designated a statewide single PSRO area . . . The TMA President's protest concluded by stressing bitter disappointment, since physicians in Tennessee have done their utmost to cooperate with PSRO requirements . . . Only Doctors of Medicine and Osteopathy can organize PSRO's prior to January 1, 1976. The protest concluded with the feeling that the action taken by HEW was a gross injustice and that further discussions and negotiations should take place at the earliest possible date. On January 29, a delegation from TMA visited with the Assistant Secretary for Health, and the PSRO Director in Washington, to voice opposition to the area designations and to urge reconsideration of TMA's and the Tennessee Foundation's original proposal.

SOME HIGHLIGHTS OF AMA HOUSE ACTIONS . . . The yellow pages of the January Journal reported some of the major issues acted upon at the clinical session of the AMA House of Delegates, meeting in Anaheim, California, December 1-5. The following is a summary of some of the other major actions taken:

--Confidentiality of Records . . . The House adopted a report which described efforts to find practical solutions to problems related to maintaining the confidentiality of patient records. The House instructed the Council to prepare model legislation to preserve confidentiality as a guide to possible state legislation. AMA went on record in opposition to violation of the confidentiality of patient records by government agencies under all circumstances.

--National Blood Program . . . The concept of the proposed AMA plan to implement the government's national blood policy by organizing blood banks and transfusion facilities within a national system that retains regional and local responsibilities and authority was endorsed by the House.

--Professional Liability . . . The House endorsed a report from the AMA Board of Trustees which summarizes the development of the new Medical Liability Commission formed by AMA and the American Hospital Association, along with several national medical specialty organizations. A high priority for financial and organizational support for the Commission was directed by the House . . . The action also puts the AMA on record as urging all delegates, state and local medical associations, and other medical organizations to support the new Commission, and submit to it any appropriate comments, suggestions or ideas for easing malpractice problems.

--Miscellaneous Actions of the AMA House . . . Referred to the Council on Medical Service a resolution urging the AMA to oppose wide differences in fees for medical services performed by equally qualified physicians who practice in different geographic areas of the state . . . Adopted a report outlining progress made in persuading the Aetna Life and Casualty Insurance Company to limit the use of its surgical predetermination form . . . Endorsed a Board of Trustees action in supporting the enactment of legislation for medical devices.

* * * * *

WHEN IS YOUR TAX RETURN SAFE FROM IRS AUDIT? . . . The IRS recently set up target dates for commencing income tax audits. Under its new schedule, audits of individual income tax returns are to begin within twenty months after the filing date (twenty-one months in the case of corporations). This means that if you have not heard from the IRS by the end of 1973, you are probably "home free" on your 1971 return (filed around twenty months before) . . . This assumes that (1) the IRS will stick to this schedule and (2) the return will not be picked up for post-target date audit as a result of some unusual factor affecting your return. Also, if an IRS audit of a later year's return results in a tax deficiency, and the same item appears in a prior return for a year that is still open under the statutes of limitations, the IRS agent may adjust the earlier (unless there is only a small amount of tax involved).

NOTE: IRS has also set a target date for completing audits of tax returns--six months after the above starting dates. These dates apply only to the usual type of audit under the normal three year period of limitations.

(Excerpt from Client's Monthly Alert Roundup)

**public
service**



COMMUNICATIONS • LEGISLATION

HADLEY WILLIAMS, ASSISTANT EXECUTIVE DIRECTOR

TENNESSEE FOUNDATION FOR MEDICAL CARE OPERATIONAL . . . The TMA-sponsored Tennessee Foundation for Medical Care, Inc. (TFMC) has received initial federal funding and is now operational with offices and staff located in Nashville. Funding came in a grant of \$444,358 provided by the Tennessee Mid-South Regional Medical Program to underwrite the start-up of the Foundation's TARP project.

TARP, the Tennessee Admissions Review Project, is a cooperative effort of the Foundation, along with the Tennessee Hospital Association and other health related agencies to develop a statewide review system to monitor hospital admissions and length of stay for Medicaid patients.

William D. Tribble, Ph.D., Nashville health care administrator, has been appointed Acting Director to implement the activities of the Foundation under the guidance of the TFMC Board of Directors. The Foundation is fully operational with staff on board and is actively representing Tennessee physicians in setting up appropriate programs and coordinating the statewide development of TARP.

According to Dr. Tribble, Foundation staff members are available for:

- assisting hospitals and medical staffs in establishing or making plans for more effective Utilization Review in compliance with JCAH requirements and PSRO;

- advice and assistance in the development and evaluation of medical care criteria and professional norms;

- advice on the development, implementation, and evaluation of peer review methods;

- advice and assistance in establishing the PSRO's organizational structure; e.g., designing by-laws, written membership policies, methods for involving physicians in the PSRO's review activities, accounting systems, reports management systems, etc.;

- assistance in designing and implementing professional educational activities to be performed by PSRO's;

- consultation and advice on the organizational and management aspects of PSRO operations.

The TFMC Board and staff are keenly aware of the Foundation's role in the future development of PSRO in Tennessee, and are committed to assuring that the responsibility of the physician herein is met and that physicians continue in the leadership role, keeping bureaucracy at a minimum.

The Foundation has launched a comprehensive education-communications program aimed at keeping Tennessee physicians current and aware of developments in the PSRO area.

Foundation Board members:

George A. Zirkle, Jr., M.D., Knoxville, Chairman

James W. Hays, M.D., Nashville

John K. Duckworth, M.D., Memphis

J. Kelley Avery, M.D., Union City
Nat E. Hyder, Jr., M.D., Erwin
Edward G. Johnson, M.D., Chattanooga
Thomas K. Ballard, M.D., Jackson
Charles B. Thorne, M.D., Nashville
Olin O. Williams, M.D., Murfreesboro
Jack Thompson, M.D., Jackson

Newly-appointed staff at TFMC in addition to Dr. Tribble are:

Yaw Chin Ho, Ph.D., Assistant Director
G. R. Addleman, M.H.A., Assistant Director
Karlene Briscoe, Administrative Assistant
Gail Warren, Administrative Assistant
Walter Steele, Programmer

The Foundation office is located at Suite 200-Executive Square, 2400 Crestmoor Road, Nashville, Tennessee 37215 and the phone number is 615/385-2444.

* * * * *

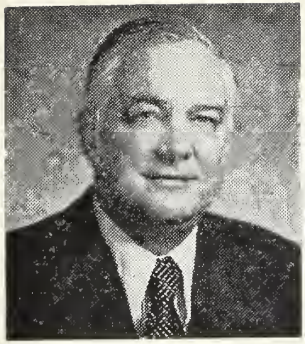
GENERAL ASSEMBLY BACK IN SESSION . . . The second session of the 88th Tennessee General Assembly began January 8, 1974. A total of 49 legislative days are available to the Assembly during 1974 insomuch as only 41 working days were utilized during the initial 1973 session. Legislative reform in both the House and Senate was an area of immediate concern to the lawmakers. Several rule changes were adopted in an effort to speed up the legislative process. A major change was adopted which provides for all standing committees to meet on Tuesday and up until Noon on Wednesdays. Regular sessions will take place Monday evening, Wednesday afternoon and all day Thursdays. TMA continues to co-sponsor with the Tennessee Hospital Association a First Aid facility in the State Capitol. Volunteer physicians from across the state staff the station on Tuesday, Wednesday and Thursday. THA provides the services of a registered nurse. TMA members desirous of serving as the Physician-of-the-Day should contact TMA Headquarters.

* * * * *

CALL TOLL FREE FOR LEGISLATIVE INFORMATION . . . Interested persons may now call toll free from anywhere in Tennessee to find out the status of any particular piece of legislation. The service is being provided by the General Assembly in an effort to keep the public informed of legislative activity. Phone 1-800-342-8490.

* * * * *

FAMILY PRACTICE PROGRAMS INCREASING . . . It was disclosed during the December AMA Clinical Convention that there are more than six times as many Family Practice residents in training today than there were in 1969 and that nearly half of the Nation's medical schools now have active Family Practice Programs. At the meeting, the Council on Medical Education submitted a report which shows that 49 of the 110 medical schools have active programs, 11 have programs under development, 13 have only graduate programs or elective preceptorships and 28 have no Family Practice Program. More than 65% of the programs are less than three years old.



MORSE KOCHTITZKY

president's page

Having been involved recently in the actions of organized medicine by virtue of my attendance at the AMA clinical session in Anaheim, I thought it would be of interest to point out the positive approaches in terms of policy as well as action taken for us by organized medicine.

I have no intention of outlining the usual benefits, i.e., the various insurance programs, attractive member retirement plan, physician placement service, leading scientific publications, legal information, etc.,—these things enumerated by staff to impress upon us the obvious tangible results of our dues.

One of the foremost things currently is PSRO. The AMA and TMA are continuing to make positive approaches to what we feel is a very bad law. Not only are we making every effort to have the law amended to meet some of our objections, but at the same time, the TMA Board has supported repeal. We therefore find ourselves working within the framework of a law that has cost containment as its primary purpose with better patient care as something to which the Government gives lip service.

Probably the most important function, but one which receives less publicity and thereby goes unnoticed, is our continuing medical education program. Not just the education of practicing physicians, but do you understand that the AMA plays a major role in the accreditation of medical schools and our intern and residency program? Actually, the accreditation committee is financed and staffed by AMA.

You might also have noted that there is an intense effort being made to obtain relief for physicians from the oppressive economic controls. These have been minimally successful, but all of the changes have been in the right direction, and I think we can expect further help in this area.

Other positive approaches that we can see and which will directly affect our practice and our ability to continue our previous mode of health care, are the AMA's proposal which would organize blood banks and transfusion facilities within a national system, yet retaining regional and local responsibility and authority; the selection of physicians (with the help of the American Hospital Association) to hospital governing boards; guidelines for emergency rooms; the emergence of a generally accepted insurance reporting form; an active program for VD prevention; a continuing sound and positive approach to National Health Insurance; and many more we could point out.

Actually, these are positives which you and I can see and feel in our every day living. If every physician knew and understood that this was the prime thrust of organized medicine, then we would have the help, cooperation, and understanding of the entire profession.

Sincerely,

PRESIDENT

journal

OF THE
TENNESSEE MEDICAL ASSOCIATION

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FEBRUARY, 1974

editorials

CANCER—1974

A short while back, the operating room nurse who brought me for frozen section our second malignant breast biopsy of the morning said, "What is this anyway—national cancer week?" We had indeed had a week filled with cancer operations. Not many days later a good friend and colleague had his second primary cancer within a few months—this time an inoperable lung cancer (he is a heavy smoker). There is nothing unusual about any of this any more—a heavy cancer operation schedule, the involvement of a friend or relative, and multiple cancers. But unlike a lot of other things, familiarity with it does not breed contempt.

It has been about 75 years since Roswell Park, for whom the famous cancer institute was named, said that if someone would give him ten thousand dollars, he could find a cure for cancer. Last year President Nixon announced a multi-billion dollar crusade against cancer, and while we are *perhaps* closer to a breakthrough than we were 75—or even five—years ago, it hasn't happened yet, and distressing numbers of people continue to die of cancer—many needlessly.

We have indeed come a long way, even though we are still largely in the dark about carcinogenesis and a real cure. So at present our best weapon against cancer still is early detection. We have lots of *methods* for this: the "Pap" smear and other cytologic procedures, mammography, the promise of serologic procedures, and just plain looking for the obvious warning signs of cancer—bleeding, discharge, a lump, and so on, to name a few.

I certainly do not wish to minimize the importance of money or methods. But important as they are, they will not "hack it" alone. What is required is education—education of the public and of you, doctor—and motivation. The Pap smear will do no good if no one uses it. It all boils down to personal involvement.

What money does best is cure poverty. It will not do much else by itself. We have a penchant for acting as though it were otherwise. Christianity spread in the first century A.D. because each Christian was a missionary. Now we give God a tip on Sunday—sometimes—and let the preacher do it. And we give a few dollars to the American Cancer Society, or worse, say "Let the Feds do it," and hope the paid workers will get the job done. They cannot. Death from cancer of the cervix has decreased because volunteers—not doctors—spread the word about Pap smears. With a little more help, it could have been wiped out. People are still dying from it—needlessly, because of lack of education and commitment.

We *must* give more effort to public education. A letter in Our Mail Box tells what one doctor is doing. He is getting them young and bringing them up right, which is really the only way. But there still are, and probably will continue to be, adults who need to be reached. Insofar as cancer is concerned, the American Cancer Society expends a great deal of its funds and efforts for public education. In fact, though its service function is perhaps more visible, it considers itself primarily an educational organization. Because it

is geared for cancer education, and committed to it, no one can do it better.

There are counties in this state where not a single doctor is involved in the work of the American Cancer Society. Your money is important, but they need *you!* They need you to help carry out a program of professional and public education about cancer. Whatever success we have at present against cancer depends on early detection and treatment. I cannot understand how doctors, who every day see their patients dying of cancer, can leave any stone unturned to make it otherwise. Why not get involved with your local unit of the American Cancer Society? The life you save could be that of someone very dear to you—it could even be your own!

J.B.T.

The Stygian Smoke (Contemporary)

[Smoking is] a custom loathsome to the eye, hateful to the nose, harmful to the brain, dangerous to the lungs, and in the black stinking fumes thereof nearest resembling the horrible Stygian smoke of the pit that is bottomless.

King James I of England,

Counterblaste to Tobacco, 1604.

It is said that no one is as virtuous as a reformed prostitute, and I suspect there is no anti-smoking zeal quite like that of an ex tobacco addict, of which I am one—as of 24 years, 2 months, 17 days, 4 hours and 20 minutes ago. But it really astounds me when I see doctors smoking, in the face of overwhelming evidence of its harmfulness. These same doctors probably wonder why their patients will not follow instructions, and no doubt berate them for it.

I know doctors who have gone through the trauma of stopping, only to start again, sometimes after several years. A few years back we were doing a brain scan on a colleague with cerebral metastases, while another colleague, cigarette in hand, looked on. When I challenged him, he said, “I don’t inhale!” Though there are encouraging signs—sometimes no one is smoking in a group of a dozen or more doctors—far too much tobacco is in use, and the per capita consumption, after falling for several years, is on its way back up. Doctors are doing their part in promoting the increase.

Some, ostrich-like, say the evidence is still inconclusive that cigarettes cause lung cancer. Actually, the incidence of cancers in other areas, for example the urinary bladder, is higher in

smokers than in non-smokers. Changing the type of smoking (from cigarettes to cigar or pipe) only changes the site of the cancer, and makes the smoker even more offensive to non-smokers. To my way of thinking, cancer is the least undesirable of tobacco’s multiple plagues. It does bad things to the cardio-vascular system, the digestive system, and the nervous system. It paralyzes the cilia of the bronchial tree, leading to stasis and chronic bronchitis. But its worst effect is on the elastic tissue of the lungs, which leads to emphysema.

Listed above are the things smoking does to the smoker. Listed below are the things it does to his friends, neighbors, acquaintances, non-acquaintances, and enemies.

Studies^{1,2} have shown that the carbon monoxide content of the blood reaches significant proportions in a healthy smoker. This is compounded in a closed environment. The same studies have shown that a non-smoker in the same room with a smoker will have a CO level of only slightly lower than that of the smoker. They further showed that CO can reach a dangerous, and perhaps lethal, level in patients with chronic lung disease or cardiac insufficiency—this in people who are innocent bystanders.

A consequence of smoking not often considered is the economic loss which smoking engenders. The sickness and death which it causes or contributes to divert scarce health resources from other needs, and reduce national economic production when patients become invalid or die. Think about it, doctor.

The worm is turning. The right to smoke is being replaced by the right not to be poisoned. A recent medical assembly was told, “Those of you who feel you must smoke before intermission, be sure only to inhale during the meeting. Don’t exhale until you get outside.” Smokers are being put on the defensive, and non-smokers are losing their timidity. More and more, smoking in medical (and other) meetings is being forbidden.

Well, smokers, how about it? You have great influence over your patients. Why not do them, yourselves, and those around you a favor and join those of us who would rather switch and breathe? After all, nine out of ten doctors who tried camels preferred automobiles. J.B.T.

REFERENCES

1. Dublin. WB, Secondary Smoking. Bull Coll of Amer Pathologists. P-244, Sept. 1972.
2. The Surgeon General’s Reports 1969, 1970, 1971. Health Consequences of Smoking. USPHS.

On Prescribing Drugs

Many of the jokes about doctors derive from our illegible handwriting. In the "old days" (good ole?) doctors wrote their prescriptions in Latin—it was a sort of status symbol, and it also kept the patients in ignorance. More recently, Latin was exchanged for poor penmanship, whereby we often also keep the pharmacist in ignorance, putting him in the position of constantly calling to see what we really meant, or of using his imagination.

In Our Mail Box (printed below) there is a communication which I hope you will read and take to heart. It consists of a listing of look-alike and sound-alike drugs. You will see that many of them have widely different, even antagonistic actions, and to confuse them would frequently be dangerous and even lethal.

It may be that the bureaucrats will solve it all for us by requiring us to use only generic terms, and by vastly diminishing our choice of drugs (*perish the thought*). But unless or until that happens I urge you to be certain that your prescriptions are written legibly and that you make sure that the floor nurse accurately transcribes your verbal orders. To do so will avoid a lot of confusion, not to mention grief, malpractice suits, and even deaths.

J.B.T.



To the Editor:

I have compiled a listing of drugs whose names look alike or sound alike. When a pharmacist takes a prescription over the telephone or attempts to decipher a physician's handwriting, a drug product not intended by the prescriber might be dispensed. Such an error might be the result of a sound-alike or look-alike drug.

I am enclosing a partial list of such drugs with striking similarities. Physicians are urged to exercise great care when writing or telephoning prescriptions.

BENJAMIN TEPLITSKY, R. PH.
1461 Shore Parkway
Brooklyn, New York 11214

DRUGS WHOSE NAMES
LOOK ALIKE OR SOUND ALIKE

AeroloneAralenArlidin
AnanaseOrinaseTolinase

Anavar	Anavac	Antepar
Arfonad	Afrin	Aspirin
Asminyl	Asmolin	Esimil
Benadryl	Benylin	Bentyl
Butisol	Butibel	Butabell
Capla	Keflin	Keflex
Chlorambucil	Chloromycetin	Chlor-Trimeton
Coramine	Calamine	Calomel
Cordex	Cordran	Codeine
Demerol	Dicumarol	Deprol
Digoxin	Digitoxin	Desoxyn
Dilantin	Phelantin	Delalutin
Disipal	Disophrol	Stilphostrol
Donnatal	Dianabol	Donnagel
Dopar	Dopram	Dorana
Doriden	Loridine	Doxidan
Elavil	Aldoril	Mellaril
Empirin	Empiral	Emprazil
Enduron	Imuran	Eutron
Esimil	Estinyl	Ismelin
Estomul	Ilomel	Isomel
Ethamide	Ethionamide	Ethinamate
Feosol	Feostat	Festal
Haldrone	Halodrin	Haldol
Harmonyl	Hormonin	Homapin
Isordil	Isuprel	Isomel
Kaomin	Kao-Con	Kaon
Kelex	Keflex	Keflin
Maalox	Maolate	Marax
Mebaral	Mellaril	Medrol
Meproamate	Meperidine	Mepergan
Mesantoin	Mestinon	Metatensin
Modane	Matulane	Mudrane
Ornex	Orinase	Ornade
Pantopon	Protopam	Parafon
Pathocil	Pathilon	Pitocin
Peritrate	Lotusate	Pentryate
Persantine	Persistin	Trasentine
Sansert	Cenasert	Singoserp
Sterazolidin	Butazolidin	Stelazine
Temaril	Demerol	Tepanil
Thyrar	Thyrolar	Tryptar
Urised	Urestrin	Uracel
Urithol	Uritral	Uritone
Valadol	Vallestril	Vistaril
Valmid	Velban	Valpin
Vontrol	Vastran	Vosol
Zactirin	Saccharin	Zentron

To the Editor:

As many of us are aware, Tennessee adopts new health education texts in 1975. The 1974 year, then might well serve for communities to decide what is wanted, needed, and practical to include in the new texts.

To date, our public school texts have been avoiding some of the more important personal and family health issues. This has had the effect of allowing pre-adolescent and adolescent peer group pressure to arise—in the absence of any useful options—as the chief determinant of youthful behavior in many of our youngsters. Teachers, school principals, school boards, parents, juvenile judges and law enforcement officers know what we mean.

Many of you may NOT know that Tennessee has had a Bedford County pilot program IN PROGRESS for a year now, under the direction of Robert Kirk, Ph.D., of the U.T. Department of Health and Safety. (Bob, Cy Mayshark and I co-authored a college-level health education text once.)

It seems to some of us that NOW is the time to obtain the best possible input from the powers that be, and from expert consultants, so that the 1975 and future texts may provide what students need and want, before they look elsewhere for their information. Having teacher training in the presentation of controversial materials is also of prime importance.

For example, I find that one adopts a much different approach when answering the (anonymously written) questions of Tyson seventh-graders, from the approach used with the more sophisticated, smaller, less uptight eighth-graders whom I have known longer and better. My experience is as a father and as an Optimist Club, visiting sponsor of the junior high school "Smart Set" drug abuse prevention clubs. Thus, I know teacher-training to be important; probably a bit more important, even, than what is inside the textbook.

But it takes both: the trained, concerned, able and gifted teacher, and the formal curriculum: the latter helping the teacher "do his or her thing," and not hindering. The school administration—if selected from the best teachers—will be able to help, too. Sometimes, though, they seem not to relate well to either teachers' needs, or students' needs. The pressures on administrators and teachers are sometimes very real and very great. Parents, kept in the dark, ANGER!

Administrators in Knox County and Knoxville City Schools are obliged to be politic. So are the politicians to whom they must relate. Thus, it is particularly gratifying to see on the horizon some recommendations coming from the Governor's "Tennessee Commission on Children and Youth" recently. Peer group pressure is being recognized as the prime determinant of post-grammar school behavior. A proprietary program for county schools, "Seed of Hope," is being introduced in Knoxville on January 2, as presented at WBIR by Juvenile Judge Dick Smith, of Hamilton County. City Schools have already opened their doors to Kiwanis and Optimist Club-sponsored "peer group prevention" programs, such as "Smart Set."

But, we still need to "spread the word" at an age and in a context where it will fall on fertile minds still open to receive it. This means comprehensive health texts beginning in grammar school and re-emphasized in increasing detail upward through junior high and high schools.

Perhaps right now we should be looking at available texts, and planning to visit with textbook publishers. Perhaps we should be contacting those textbook authors we know best and trust, who live in the same community where the rest of us live: seeing problems arise, worsen or resolve. Perhaps we need to be writing our own texts. Perhaps PTA's need to popularize adult education programs in comprehensive health education.

There are entirely too many parents—and grandparents—who do not understand the limitations of a toothbrush, of dictatorial taboos, of condoms, or of

good intentions. Perhaps we need to be in touch with adult education programs available locally through city, county and state systems. Perhaps we need to be in touch with radio and television public information officers.

In short, we do NOT have to wait for public misinformation crises such as last year's great "clap-flap" on the U.T. campus during winter quarter. We have a large job, but not an impossible one, I think.

Finally, the naivete of supposedly-sophisticated adult voters in this country, in the area of mental health, became painfully apparent in the Thomas Eagleton affair. Some of us feel strongly that mental health does not just happen along to those whose thoughts are "right." Mental health can and should, be set as a reachable goal, with some of the steps available through quality comprehensive health education texts, in public schools, beginning at grammar school level. When goals are not set, they are not reached. When intimate relationships exist between mental-emotional health and drug orientation, we must touch all bases in order to win.

We will bring this to TMA as a resolution in April.

ROBERT PRESTON HORNSBY, M.D.
606 Main Avenue, S.W.
Knoxville, Tennessee 37902



BELL, WILLIAM FREED. Bolivar, died December 24, 1973, age 68. Graduate of University of Tennessee, 1932. Member of Consolidated Medical Assembly of West Tennessee.

HARRIS, JOHN W., Columbia, died December 21, 1973, age 41. Graduate of University of Tennessee, 1962. Member of the Maury County Medical Society.

JENKINS, MARION LOCKWOOD, Corryton, died December 22, 1973, age 89. Graduate of Lincoln Memorial University, 1912. Member of Knoxville Academy of Medicine.

NEWMAN, ROBERT W., Knoxville, died December 10, 1973, age 58. Graduate of University of Tennessee College of Medicine, 1940. Member of Knoxville Academy of Medicine.

WATERHOUSE, RICHARD GREEN, died December 20, 1973, age 78. Graduate of University of Virginia Medical School, 1923. Member of the Knoxville Academy of Medicine.



The JOURNAL takes this opportunity to welcome these new members of the Tennessee Medical Association.

**CHATTANOOGA-HAMILTON COUNTY
MEDICAL SOCIETY**

Hilda N. Alisago, M.D., Chattanooga

NASHVILLE ACADEMY OF MEDICINE

Dennis C. Workman, M.D., Nashville
John Burr Bassel, M.D., Madison
Lloyd H. Ramsey, M.D., Nashville
Hakan Sundell, M.D., Nashville
Crafton H. Thurman, M.D., Nashville
John A. MacPhail, M.D., Nashville

WILSON COUNTY MEDICAL SOCIETY

Barun A. Mukherji, M.D., McMinnville

programs and news of medical societies

Knoxville Academy of Medicine

The Academy met on December 11, 1973 and installed new officers which include: Dr. Mark P. Fecher, President; Dr. William O. Miller, President-Elect; Dr. Robert B. Gilbertson, Vice-President; Dr. Henry H. Long, Secretary; and Dr. William G. Laing, Treasurer.

Elected to the Executive Committee for a two year term were: Drs. Robert H. Collier, T. F. Haase, Jr., and Robert B. Whittle.

Memphis-Shelby County Medical Society

New officers have been installed including: Dr. W. David Dunavant, President; Dr. Wilford H. Gragg, Jr., President-Elect; Dr. Richard L. DeSaussure, Vice-President; Dr. Daniel J. Scott, Secretary, and Dr. Howard Boone, Treasurer.

Nashville Academy of Medicine

The Academy held its annual meeting on January 8, at the University Club in Nashville.

New officers for 1974 are: Dr. George Holcomb, President; Dr. David Pickens, President-Elect; Dr. Fred Rowe, Secretary-Treasurer.

The Academy sponsored a "Good Mental Health is Total" program on January 10, 17, 24 and 31. The four-day program focused on four areas of concern including: "The Family," "Helping Children Grow," "Bourbon in Suburbia," and "The Changing Woman."

During 1974, a total of 133 academy members will serve on the Academy's 20 standing and special committees to conduct the various affairs of the Academy in the area of scientific and socio-politico-economic activities.

national news

THIS MONTH IN WASHINGTON (From Washington Office, AMA)

Little noticed amid congressional confusion in attempting to deal with the energy crisis was the passage of a major health bill shortly before adjournment. The bill provides \$375 million

over five years to support the development of Health Maintenance Organizations (HMO's) across the country.

If signed into law by the President, the HMO legislation will go far in determining both consumer and provider acceptance of prepaid group health care. Despite a substantial flow of federal dollars into the experimental program, HMO's are not expected to encounter easy sailing. Ardent supporters of the program admit the trial period will be a rough one and caution against over optimism.

The speculation is that the President will sign the bill inasmuch as the money provided is not far over what the Administration originally requested, though the bill is much broader in scope than the President wished.

Two key provisions of the \$805 million bill first approved by the Senate earlier this year were deleted or watered-down in conference enough to make the measure more palatable to the administration. One would have authorized federal subsidization of HMO premium costs for people who couldn't afford all or part of the cost. The other controversial Senate section would have created an independent Commission on Quality Health Care Assurance to supervise the HMO program. The compromise bill vests this responsibility with the Assistant Secretary of HEW for Health.

To qualify for federal aid, HMO's must meet a long list of federal standards of minimum benefits, stay open 24 hours a day, provide open enrollment, and conform to numerous other requirements. Inducements are provided to attract people from poor and rural areas.

The Senate provision authorizing grants to assist HMO's in meeting operating deficits during the initial three years of operation was knocked out of the final bill, but a loan fund was retained to aid HMO's in meeting "a portion of initial operating costs in excess of gross revenues."

Co-payments were barred under the Senate bill. However, the conference agreed to allow HMO's to charge nominal co-payments, but not to the extent they could be considered a barrier to seeking treatment. The conference committee said the co-payments are aimed at enabling an HMO "to market its benefit package at a competitive price."

The final bill requires larger employers to offer workers an HMO option when existing contracts for health insurance expire provided that a qualified HMO is operating in the area.

The bill does not provide a specific number of HMO's, but the bill's legislative history indicates the Congress had in mind around 100 programs.

* * *

Rep. John Rarick (D.La.), principal congressional sponsor of legislation to repeal the Professional Standards Review Organization (PSRO) program, has dispatched a letter to all members of the House urging their support.

In his letter, Rarick said PSRO "is the hottest controversy facing medical doctors and their patients. The American Medical Association's prestigious House of Delegates yesterday voted to seek congressional repeal of this controversial peer-review law that goes into effect on 1 January 1974."

Rarick quoted AMA President-elect Malcolm C. Todd, M.D., as calling PSRO "... The greatest threat to the private practice of medicine of any piece of legislation ever passed by Congress."

The PSRO section of Medicare was added by the Senate and was never adequately debated, the lawmaker said. "The House did not even hold public hearings on this issue."

Rarick cited the *Wall Street Journal's* statement on PSRO—that points out that "the controversial legislation is laced with pointed references to 'new obligations imposed on' medical practitioners. It requires physicians to open their private files and hospital records to outside inspectors. Strong financial sanctions are provided for physicians who fail to comply."

Rarick wrote that he is concerned over the effect of the legislation on private medical practice in this country. "I am convinced that the medical profession has done an outstanding job of policing its own profession and establishing a high code of ethics. It simply does not make sense to bog down the medical profession with further government intervention that threatens the relationship between doctor and patient."

* * *

The first round of congressional hearings on National Health Insurance (NHI) concluded following a week of testimony from experts in the health-economic field who laid a general philosophical foundation for full-scale legislative sessions early in the new year.

The hearings by the House Health Subcommittee were the opening gun in what promises to be a busy 1974 in congress on the issue of a NHI bill.

The Subcommittee, headed by Rep. Paul Rogers (D. Fla.), has charted six weeks of

further testimony in January and February that will consider specific legislative proposals. The House Ways and Means Committee also is slated to explore NHI sometime next year. Senate sessions are expected to open during the winter or spring by both Senate Finance and Senate Labor and Public Welfare Committees.

The next major development in the field will be the formal disclosure of the details of the Administration's new plan, expected to be unveiled in President Nixon's January State of the Union speech to Congress and probably in a special message to Congress on health.

The new Administration plan will be more liberal than the previous one, but it will continue to be based on the principle of requiring employers to furnish comprehensive health insurance to their workers. The major changes are a broad catastrophic provision tied to income and federal subsidization of premiums for all poor people. Medicare and Medicaid, apparently, would lose their separate identities and become part of the new program under the jurisdiction of the Public Health Service.

According to Budget Director Roy Ash, NHI should be kept to a size that will avoid creating more demands for health services than can be met with existing resources. Otherwise, he said in an interview with the *New York Times*, there is a danger that the sole accomplishment would be an increase in the prices of health services.

Many of the witnesses before Roger's Subcommittee predicted that a financing mechanism for NHI without other provisions would add to inflation of health care costs without much impact, if any, on the health of Americans. Other experts questioned whether any type of NHI would improve health, contending that environment, life styles, poverty, etc., are to blame for poor health conditions.

The closest approach to a consensus was that too much hope should not be placed in a NHI program to solve the health care problems of the nation.

One of the final witnesses, Robert J. Myers, former Chief Actuary of the Social Security Administration, denied there has been any crisis in health care costs, asserting that health has simply been caught up in the "general price and wage inflation resulting from the Viet Nam war, plus the more rapid wage increases of hospital personnel . . . plus the historical trend of medical care costs rising more rapidly than the general price level . . ."

Myers said there is "far too much" first dollar coverage in private health insurance and not enough catastrophic coverage. Catastrophic, he said, "is sorely needed by most Americans" and should vary with income and assets.

"I am convinced that cost-sharing provisions, properly designed can have a beneficial effect in preventing overutilization without being an unjust economic barrier that will result in preventing the insured from receiving necessary medical care. . . ."

Under a sweeping NHI such as proposed by Sen. Edward Kennedy (D.Mass.), and labor "the providers of services might rebel if the financial screws on them are tightened too rapidly or too much, or the beneficiaries might rebel if they are regimented or controlled too much as to their desires for medical services," Myers told the Subcommittee.

Herbert Denenberg, Pennsylvania Commissioner of Insurance, asked for strict cost and quality controls in any NHI program. "Pumping more dollars into a health care system with serious structural shortcomings will aggravate present problems."

Earl Brian, M.D., California Secretary of Health, stressed that the cooperation of organized medicine and other health providers is necessary for a NHI program to work. Otherwise, the nation's health care system will deteriorate, he said. As many responsibilities as possible should be left to the providers, according to Dr. Brian. He cited the cooperation of organized health groups in California despite state controls that have "alienated the health care community." The demand for medical care will always exceed the dollars available, he said, so any program must contain restrictions which relate it to the free market system. The present concern over Professional Standards Review Organizations is only a harbinger of what would happen if a bureaucratic NHI were enacted and demonstrates the "imprudence of permanent government controls," he asserted.

* * *

Sen. Edward Kennedy's Health Subcommittee hearings on the drug industry lived up to their explosive expectations with HEW Secretary Caspar Weinberger throwing the first bomb by announcing that the Administration would propose a cost-saving drug plan for Medicare and Medicaid patients under which reimbursement would be limited to "the lowest cost at which the drug is generally available."

Estimating the savings at from \$25 to \$60 millions a year, the HEW proposal was a blow to the pharmaceutical industry which viewed it as a step toward generic prescribing and a set back to the brand name concept. Congress would have to approve the proposal, however.

Under questioning from Subcommittee members, Weinberger was vague about how the program would work, but emphasized that physicians would remain free to prescribe as they choose. Sen. Kennedy praised the proposal. Sen. Gaylord Nelson (D.Wis.) said the HEW recommendation "must be only the first step in a massive intrusion by the federal government into the prescribing habits of physicians."

The first day's session featured charges that drug companies are monopolistic, keep prices jacked high, and spend huge amounts on advertising. Physicians were described as inept and too generous prescribers of drugs influenced inordinately by advertising and drug detail men. It was implied that 100 deaths a day due to adverse drug reactions were the fault of the drug industry and the prescribing physicians.

Sen. Gaylord Nelson (D.Wis.), a Subcommittee member, urged that prescription drug advertising be banned and trade names eliminated. Consumer advocate Ralph Nader agreed and recommended patent restriction.

In an opening statement, Kennedy said the hearings are designed to "search for legislative solutions to the problems surrounding the way drugs are developed, marketed and used in this country." He said "Too many physicians are prescribing too many drugs on the basis of too little information . . . such irrational prescribing is a product of physician ignorance, not malice. . . ."

Kennedy's Subcommittee had never before asserted broad jurisdiction in the drug field. The hearings were viewed as a stake-out to this aspect of health and government, and also as a bow to Nelson who has been investigating the drug industry for years and is its strongest critic on Capitol Hill. Nelson is a new member of the Kennedy Subcommittee. His previous forum was a Senate small business Subcommittee.

James H. Sammons, M.D., Chairman of the Board of the American Medical Association, told the Subcommittee that in the heat of controversy it should be emphasized that "Today there are a large number of drug preparations available through a complex delivery system replete with checks and balances provided by industry, the

Food and Drug Administration, physicians, pharmacists, and in some instances allied health personnel."

Dr. Sammons continued, "It is not surprising that this complex and important system carries with it complex problems that different groups within the system perceive differently . . . simple solutions for the management of our problems are not realistic."

The AMA official said the reduction in funding for research investigators could have an adverse effect on development of improved drugs. The complexity of FDA procedures "is becoming self-defeating and some new approaches are required if we are to be able to provide new and useful therapeutic agents to alleviate existing maladies."

Whatever is done, Dr. Sammons said, "the physician must be able to prescribe the drug in dosage and strength deemed appropriate for his patient. . . ."

"Where appropriate, we believe the physician should prescribe the least expensive product," Dr. Sammons testified. "But the generic name on the bottle is not a guarantee of equivalence, nor for that matter does a generic prescription even guarantee to the patient that he will receive the least expensive product."

C. Joseph Stetler, President of the Pharmaceutical Manufacturers Association, testified that, "What the secretary is proposing represents an extraordinarily radical approach to health care, one which may give the appearance of providing first class medical care at less cost, but which will either require Medicare and Medicaid beneficiaries to accept inferior products or force them to pay the cost of first class medicine from their own household budgets."

Stetler said the proposal might have some merit if therapeutic equivalence of drugs could be assured, "but the published evidence is almost entirely on the other side. Reports of the clinical inequivalence of drugs sold under the same generic name are increasing as are quality control failures."

On another tact, Stetler said new drug discoveries have been a major contributor to improving health care, and that drug prices have held stable in a period of soaring inflation.

But, he warned, America is falling behind foreign competitors in the rate of pharmaceutical innovation, adding that the industry's pattern of discovery of new drugs and the stable prices of medicines are threatened by proposals to reduce

incentives for drug producers to continue their massive research programs.

"Price setting, dilution of patent rights, or a government takeover of research and development or promotional activities," suggested by some, would be self-defeating and lead to higher prices and lower productivity, Stetler said.

Although the industry's dollar investment in research is continuing to climb, Stetler testified that fewer American pharmaceutical firms are sponsoring such activities due, in part, to the tangle of government delays and regulations.

In his slashing testimony, Sen. Nelson said the AMA "has cooperated in creating confusion" and has been "disastrous in this field because the custodians of health care in this country are the guide to us on what good medical practice is." The AMA "has done more damage to the good practice of drug prescribing than if it did not exist at all," Nelson said. The AMA's drug manual was "degraded" due to pressure from drug companies . . . "For money! It is as simple as that," he asserted.

Nader accused the industry of "price gouging and causing serious harm to tens of thousands of people that is unparalleled in its history."

The hearings will resume later this winter and continue through to summer.

* * *

The Administration has moved to set clear fuel priorities in the health field as Congress was warned by health leaders that emergency care, drugs and devices and hospital care could be severely affected unless sufficient fuel is made available this winter.

Immediately following a hastily scheduled one-day hearing before the Senate Health Subcommittee, William E. Simon, head of the Federal Energy Office, said the pharmaceutical industry will get all the fuel it needs for production and research in order to maintain adequate supplies of essential drugs and medical supplies.

A spokesman for the American Medical Association testified there is a critical need to make special provisions for an adequate supply of motor fuel to meet the needs of medicine. J. Cuthbert Owens, M.D., a member of the AMA's Commission on Emergency Medical Services, said, "Physicians, nurses, life support personnel, rescue workers, and ambulances and other emergency motor vehicles must have a sufficient and continuous supply of gasoline to insure the provision of prompt care for the ill

and injured. In addition, adequate fuel must be available to health care institutions, as well as to suppliers of necessary medical equipment and supplies."

Leo J. Gehrig, M.D., Vice President of the American Hospital Association, said there is no federal natural gas allocation program for health care institutions.

"This substantial area of potential energy shortages significantly magnifies the effect of shortages of other fossil fuels on hospitals," Dr. Gehrig told the Subcommittee. The proposed regulations published on December 13, 1973, providing for mandatory allocation of middle distillates, allow hospitals only 100% of their 1972 base period volume, he pointed out. "With increasing natural gas interruptions there is need for hospitals to receive 100% of current fuel requirements," Dr. Gehrig said.

"The hospitals of this country must be provided the priority and supply of energy sources to permit them to deliver vital services to patients," Gehrig said.

medical news in tennessee

VU's Orgebin-Crist Named to Burch Chair in Reproductive Biology

Marie-Claire Orgebin-Crist, D.Sc., director of the Center for Population Research at Vanderbilt Medical Center, has been named Lucius Burch Professor of Reproductive Physiology and Family Planning at Vanderbilt, succeeding Dr. Bert O'Malley.

The chair in reproductive physiology and family planning was endowed anonymously in 1969 by a \$750,000 gift to the university in memory of Dr. Lucius Burch, dean of the Vanderbilt school of medicine from 1913 to 1920, chairman of the department of obstetrics and gynecology until 1945 and member of the board of trust until his death in 1959.

Dr. Orgebin-Crist holds a Baccalaureate Latin-Sciences, a License of Natural Sciences and License of Biology, Paris University, France, and a Doctorate of Sciences, Lyons University, France.

She joined the Vanderbilt faculty in 1963 as a research associate, and rose to professor of obstetrics and gynecology during her tenure at the medical center. Dr. Crist's work involves the

problems of male reproduction and the control of male fertility.

She is a member of the Population Research and Training Committee, National Institute of Health and Human Development from 1970 to 1972 and chairs the committee until 1974, and is one of the three members of the steering committee of the World Health Organization task force on Regulation of Male Fertility.

U.T. Medical Units College of Pharmacy Drug Product Equivalency

Researchers at the University of Tennessee Medical Units College of Pharmacy have determined that certain prescription drug products may not provide effective drug levels. The work was carried out in the laboratories of the Medicinal Chemistry Department's Division of Drug Metabolism and Biopharmaceutics. Dr. Marvin C. Meyer, Director of the Division, is heading up the program. Associated with him are Dr. Armen Melikian, Dr. Gerald Slywka and Dr. Phillip Whyatt.

The studies were sought by Tennessee pharmacists and are being sponsored by the Tennessee Department of Public Health. The program was implemented in connection with the frequently debated question as to whether presumably identical products, marketed by various pharmaceutical companies, and sometimes exhibiting a significant price disparity, may be considered equivalent.

The first two studies in this program have investigated the extent of absorption of the antibiotic tetracycline from sixteen different products and the absorption of the antibacterial nitrofurantoin from fourteen different products. The drugs were evaluated by measuring their excretion in urine following administration of the products to human volunteers; a cross-over design was employed.

The nitrofurantoin products tested were the 50 and 100mg dosage forms available from five different manufacturers. Although the 50mg tablets obtained from McKesson and Wolins failed to reflect adequate absorption of the drug, the 100mg tablets from the same two companies registered adequate absorption. The products which failed the evaluation were absorbed fifty percent below that of the highest values determined, and were eighty-eight percent lower in the duration of therapeutic (30 μ g/ml) urine levels. At least one of the companies is already in the process of re-examining the dosage form

which did not meet the criteria of the evaluation.

On the other hand, the results of the tetracycline studies indicated no statistically significant difference between the sixteen products evaluated. The products tested were 250mg capsules marketed by sixteen manufacturers.

Continuing studies will examine other drugs, as well as evaluate future lots of tetracycline and nitrofurantoin products to determine whether the referenced findings are representative.

The issue of drug product equivalency is the subject of national concern. The State of Tennessee, through its Department of Public Health, is taking positive action by means of this unique program of drug product evaluation, to insure the quality of medication available to all citizens of the State.

KILLER—CANCER **(March 11, 8-9:30 P.M.)**

Cancer will strike one out of every four Americans at some time during his or her life. It is the nation's second largest killer.

The National Cancer Act of 1971 set the stage for what was promised as a "billion dollar fight to conquer cancer." Whereas many individuals held out great hope for a "quick cure," cancer specialists are far more cautious. The unhappy truth is that over 60 percent of people afflicted with cancer—excluding that of the skin—die from it. Almost half of all women who get breast cancer will die from the disease; the fatality rate is approximately 50 percent for men and women who have oral cancer as well as cancer of the kidney or bladder. Virtually everyone who gets stomach cancer dies from this dread disease, and the survival rate is only 9 percent for those afflicted with lung cancer.

In the area of prevention, scientists are looking at the environment, at foods, and at hereditary disposition toward certain tumors. At the basic research level, they are probing the character of the tumor cell to find out why it grows out of control and are stepping up the search for elusive viruses that are suspected of causing some human tumors.

At the bedside, they are improving the kinds of treatment—and are giving new attention to the rehabilitation of cancer patients maimed by surgery, drugs, or the disease itself.

Although "cure" is a strong word, doctors believe that nearly a dozen known types of cancer can be cured, mostly with a battery of new drugs in delicate combinations with each other. These

"curable" cancers include several forms of leukemia and lymphoma that strike children, Hodgkin's disease, which afflicts young adults, as well as cancer of the placenta, cervix and skin.

Combination drug therapy, while holding out hope, seems to work best only in the hands of a few specialists. Centers for cancer treatment now need to be spread across the country so that more people will have easier access to the best—and latest—therapy, in the hands of experts. Fifteen cancer centers are slated to go into operation around the country by 1975, but there is much more to be done.

Practicing physicians need to know more about who the experts are: individuals need to seek means for early detection; and communities must look into environmental causes. These are among the subjects covered on the Cancer show in "The Killers" series.

Medical Advisory Board for Cancer: Mr. Alan C. Davis, vice president, American Cancer Society; Mr. Sol Spiegelman, Ph.D., director, Institute for Cancer Research; Dr. Frank J. Rauscher, Jr., director, National Cancer Institute; Dr. Vincent DeVita, chief medicine branch, National Cancer Institute.

personal news

DR. RALPH L. BRICKELL, JR., Tullahoma, has been elected President of the Coffee County Medical Society.

DR. JAMES B. COX, Knoxville, has been named Chief of Staff at the Baptist Hospital.

DR. WILLIAM ALLEN EXUM, Kingsport, has been named President of the medical staff of the new Indian Path Hospital.

DR. GOTTLIEB C. FRIESINGER, Nashville, has been elected fellow in the American College of Cardiology.

DR. EDWIN E. GRAY, Tullahoma, is the new Chief of Staff at John W. Harton Memorial Hospital.

DR. R. H. HUTCHESON, SR., Franklin, was named Williamson County's "Man of the Year" for 1974.

DR. FELIX G. LINE, Knoxville, has been elected Chairman of the Tennessee Chapter of American Academy of Pediatrics.

DR. JOHN R. MORGAN, Chattanooga, has been elected to fellowship in the American Academy of Pediatrics.

DR. ARTHUR M. OWENS, Dunlap, has been elected to active membership in the American Academy of Family Physicians.

DR. JOHN C. THORNTON, JR., Brownsville, has completed requirements to retain membership in the American Academy of Family Physicians.

DR. SIDNEY L. WALLACE, Knoxville, has been re-elected to a second term as Chairman of the board of the East Tennessee Children's Rehabilitation Center.

DR. COULTER S. YOUNG, Manchester, has been elected Chief of Staff of the Coffee County Hospital.

announcements

CALENDAR OF MEETINGS

STATE

April 10-13 Annual Meeting of Tennessee Medical Association, Gatlinburg Auditorium, Gatlinburg, Tenn.

NATIONAL

Feb. 15-21 Thirteenth Congress of the Pan-Pacific Surgical Association, Hilton Hawaiian Village Hotel, Honolulu, Hawaii

Feb. 21-23 Seventeenth Congress of Administration, American College of Hospital Administrators, Palmer House, Chicago

Feb. 28- March 1 38th International Medical Assembly of Southwest Texas, El Tropicano Motor Hotel, San Antonio

March 1-8 American Society of Clinical Pathologists, Los Angeles Hilton, Biltmore, and Convention Center, Los Angeles

March 8-10 AMA-AMPAC Public Affairs Workshop, Washington-Hilton Hotel, Washington, D.C.

March 9-16 International Academy of Pathology, San Francisco Hilton, San Francisco

March 25-27 American College of Surgeons, Houston

March 27 American Society of Clinical Oncology, Rice Hotel, Houston

March 29- April 3 American Society of Abdominal Surgeons, Caesar's Palace, Las Vegas

April 1-5 American College of Radiology, Roosevelt Hotel, New Orleans

April 4-6 American Pediatric Surgical Association, New Orleans

April 4-7 American Fertility Society, Diplomat Hotel, Miami, Fla.

April 20-22 American Academy of Facial Plastic and Reconstructive Surgery, The Breakers, Palm Beach, Fla.

April 21-22 American Otological Society, The Breakers, Palm Beach, Fla.

April 22-24 American Association for Thoracic Surgery, Las Vegas Hilton, Las Vegas

April 22-25 American Academy of Pediatrics, Spring Meeting, Americana Hotel, Bal Harbour, Fla.

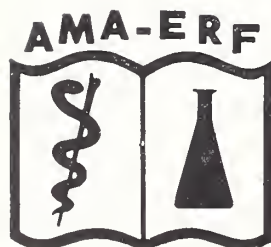
April 23-25 American Laryngological, Rhinological and Otological Society, The Breakers, Palm Beach, Fla.

April 25-26 AMA National Conference on Rural Health, Detroit Hilton, Detroit

April 28- May 2 Industrial Medical Association, Americana Hotel, Miami, Fla.

* * *

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Medical College of Georgia CME Courses

Date	Title, Location
	1974
March 21-23	Geriatric Problems in Family Practice, Medical College of Georgia, Augusta, Ga.
March 28-29	Gastroenterology, The Atlanta Marriott, Atlanta, Ga.
June 13-15	Internal Medicine, Buccaneer Motor Lodge, Jekyll Island, Ga.

American College of Physicians Regional Meeting

Alabama Regional Meeting, May 10-12, 1974, Point Clear, Alabama. INFO: Alwyn A. Shugerman, M.D., 1815 11th Ave., S., Birmingham, Ala. 35205

Network for Continuing Medical Education Schedule of Upcoming NCME Programs

Feb. 11- Feb. 24	PAUL D. WHITE: CARDIOLOGY IN MY TIME. The late Dr. Paul D. White describes the development of cardiology as a specialty. This special program was first introduced during the American College of Cardiology annual meeting in 1968 and is offered again on the anniversary of that meeting.
	THE DISTRESSED NEWBORN: THE FIRST 30 MINUTES, with Peter A. M. Auld, Director, Neonatal Intensive Care Unit, and Professor of Pediatrics, New York Hospital—Cornell Medical Center, New York.
Feb. 25- March 10	TREATMENT OF PULMONARY EMBOLISM, with William Hall, M.D.,

Director of the Pulmonary Function Unit, Strong Memorial Hospital; Assistant Professor of Medicine, University of Rochester, School of Medicine, Rochester, New York.

THE FIVE-MINUTE JOINT EXAM, with John J. Calabro, M.D., Chief of Rheumatology, Worcester City Hospital; Professor of Medicine, University of Massachusetts Medical School.

DETECTING OPEN ANGLE GLAUCOMA, with Jerome N. Goldman, Attending Ophthalmologist, Washington Hospital Center, Assistant Clinical Professor of Ophthalmology, Howard University Medical School, Washington, D.C.

For more information about NCME, write the Network for Continuing Medical Education, 15 Columbus Circle, New York, New York 10023.

The University of Tennessee College of Medicine Schedule of Continuing Education Courses, 1974

Feb. 25-27	Recent Advances in Pulmonary Disease, Memphis
Mar. 3-8	Fundamentals of Otolaryngology, Memphis
Mar. 14-16	Fluctuant Hearing Loss, Memphis
Mar. 17-20	Principles of Rhinoplasty, Memphis
Mar. 25-30	Review Course, Memphis
Apr. 6-7	Pediatric Anesthesia, Memphis
Apr. 18-19	Leigh Buring Conference on Exceptional Children, Memphis
Apr. 29-30	Emergency Room Care, Memphis
May 10-12	Fundamentals of Clinical Otolaryngology, Memphis
May 15-18	Clinical EKG, Paris, Tenn.
May 20-24	Intensive Review of the Science of Anesthesiology, Memphis

Vanderbilt University CME Course Listings

1974

<i>Venereal Disease: A New Look at Treatment</i>	
Tenn. Dept. of Public Health; U. of Tennessee; Meharry Medical College	March 16
<i>Diabetes: 1974</i>	April
<i>13th Annual Seminar in Psychiatry</i>	
Central State Psychiatric Hospital; Tenn. Dept. of Mental Health; Meharry Medical College	May

For further information contact:

Paul E. Slaton, M.D., Director

or

Marilyn Short, Administrative Associate

Vanderbilt Continuing Education

305 Medical Arts Building

Nashville, Tennessee 37212 Tel. 615-322-2716

Clinical Training Program For Practicing Physicians

Opportunities for advanced clinical education for physicians in family practice and in various subspecialties have been developed by the School of Medicine and the Division of Continuing Education of Vanderbilt University. The practicing physician, with the guidance of the participating department chairman, can plan an individualized program of one to four weeks to meet recognized needs and interests. The experience will include contact with patients, discussion with clinical and academic faculty, conferences, ward rounds, learning individual procedures, observing new surgical techniques, and access to excellent library resources. Experience in more than one discipline may be included.

Participating Departments and Divisions

Anesthesiology Bradley E. Smith, M.D.

Medicine Grant W. Liddle, M.D.

Cardiology Gottlieb C. Friesinger, III, M.D.

Chest Diseases James D. Snell, M.D.

Dermatology Robert N. Buchanan, Jr., M.D.

Endocrinology & Diabetes .. Grant W. Liddle, M.D.

Gastroenterology Steven Schenker, M.D.

Hematology Robert C. Hartmann, M.D.

Infectious Diseases Zell A. McGee, M.D.

Renal Diseases H. Earl Ginn, M.D.

Clinical Pharmacology John A. Oates, M.D.

Neurology Gerald M. Fenichel, M.D.

Obstetrics & Gynecology Paul W. Griffin, M.D.

Pathology Virgil S. LeQuire, M.D.

Pediatrics David T. Karzon, M.D.

Psychiatry Marc H. Hollender, M.D.

Radiology John R. Amberg, M.D.

Surgery

General H. William Scott, Jr., M.D.

Neurological William F. Meacham, M.D.

Ophthalmology James H. Elliott, M.D.

Oral H. David Hall, D.M.D.

Pediatric James A. O'Neill, M.D.

Plastic John B. Lynch, M.D.

Thoracic & Cardiac Harvey W. Bender, M.D.

Urology Robert K. Rhamy, M.D.

Cancer Chemotherapy .. Vernon H. Reynolds, M.D.

ELIGIBILITY: All licensed physicians are eligible.

ADMINISTRATIVE FEE: \$200.00 per week.

CREDIT: American Medical Association Physicians Recognition Award and American Academy of Family Physicians Continuing Education accreditation.

APPLICATION: For further information and application, contact:

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American College of Chest Physicians Postgraduate Programs, 1974

The ACCP in co-sponsorship with leading medical schools and teaching hospitals offer physicians and surgeons a continuing education program specializing in the diagnosis and treatment of heart and lung diseases. The continuing education program for physicians sponsored by the American College of Chest Physicians has been accredited by the Council on Medical Education of the American Medical Association and is acceptable for credit toward the AMA Physician's Recognition Award.

For further information contact: Bradford W. Claxton, M. Ed., Director of Continuing Education, American College of Chest Physicians, 112 East Chestnut Street, Chicago, Illinois 60611.

Feb. 25-Mar. 1—"Problems in Clinical Cardiology," Miami Beach, Florida

Mar. 4-6—"Respiratory Care in Shock Syndromes" (With a Special Session on Underwater Pulmonary Problems), Honolulu, Hawaii

Mar. 27-29—"Office Management of Respiratory Disease," Las Vegas, Nevada

Apr. 3, 4—"Advances in the Management of Acquired Heart Disease," Playboy Club Hotel, Great Gorge, N.J.

May 23, 24—"Critical Care Medicine—The Nurse, The Therapist, The Physician," Denver, Colorado

Symposium on Bone and Joint Radiology

The Departments of Diagnostic Radiology and Orthopaedic Surgery at the University of Kentucky Medical Center, Lexington, Kentucky, will conduct a symposium on Bone and Joint Radiology from May 1-3, 1974, immediately preceding the 100th Renewal of the Kentucky Derby. In the morning sessions a distinguished guest faculty will analyze radiographs of selected unknown cases that demonstrate differential diagnostic features of various types of bone and joint pathology. Each registrant will be sent copies of the radiographs of each case prior to the meeting. Afternoon sessions will be devoted to informal discussions between small groups of registrants and a member of the guest faculty.

For further details and an application form, write:

Ronald D. Hamilton, M.D.

Director, Continuing Education

College of Medicine

University of Kentucky

Lexington, Ky. 40506

Symposium on the Recent Advances In the Practical Management Of Allergic Diseases

A 3-day symposium will be held for the general medical community at a resort hotel this spring, with outstanding specialists in the field of allergy as featured speakers. A golf and tennis tournament will be held

in conjunction with this symposium. Please contact:
Claude A. Frazier, M.D.
4-C Doctors' Park
Asheville, NC 28801

Postgraduate Symposium of Rheumatic Diseases

The 10th Annual Postgraduate Symposium on Rheumatic Diseases will be held on Thursday, May 9, 1974 in the auditorium of the Health Science Center, University of Louisville School of Medicine.

American College of Obstetricians And Gynecologists Annual Meeting

The 22nd Annual Clinical Meeting of the American College of Obstetricians and Gynecologists will be held, April 29 thru May 2, 1974, Las Vegas, Nevada.
Highlights: Fifty papers on current clinical and basic investigation. The President's Program, "The Conquest of Breast Cancer." One panel will discuss the management of breast cancer (diagnosis, treatment, rehabilitation). In a second panel current concepts, etiology, pathology and research will each be a focus of an expert. These are 15 Position papers with current thinking on the more common and important problems in the specialty as seen by prominent authorities. Registration fee for non-members: \$125.00.
Contact: Mr. Donald F. Richardson, Associate Director, The American College of Obstetrics and Gynecologists,
One East Wacker Drive
Chicago, IL 60601

Audio-Cassette Directory Available

Many doctors rely upon audio-cassette tape-recordings for part of their continuing medical education, usually by subscribing to Audio-Digest or Accel or one of the other well-known educational services. There are, however, many other medical programs that are available on audio-cassettes, often without charge.
To aid the physician in locating these little-known but often useful programs. Cassette Information Services of Los Angeles has published its 1974 Directory of Spoken-Voice Audio-Cassettes. Although the services for the health sciences—medicine, nursing, pharmacy, dentistry, hospital administration—comprise a large portion of this 108-page directory, it lists programs in all fields and interests. These range from courses for accountants and management executives to inspirational and entertainment tapes for shut-ins. There is also a large selection of "how-to-do-it" programs, including many on such topics of interest to the physician as hypoglycemia, acupuncture and the Lamaze method of childbirth preparation.
The CIS Directory is not a catalog, but rather a compendium of program titles and subjects that can be found on audio-cassettes, a brief description of each (including price), and from whom the tape or more information may be obtained. The directory itself is available for \$5.00 from Cassette Information Services, Box 17727, Los Angeles, CA 90057.

Practical Clinical Cardiology

"Practical Problems in Clinical Cardiology" will be held at the Playboy Plaza Hotel, Miami Beach, Florida, on February 25-March 1, 1974, sponsored by the American College of Chest Physicians and the Mount Sinai Medical Center. Main emphasis will be placed on patient management encountered in every day practice. A free exchange of information between faculty and participant will be encouraged through small group discussions.
Registration fees for this course are: ACCP members \$125; Non-members \$150; and Residents \$75. For further information write: Bradford W. Claxton, M.Ed., Director of Continuing Education, American College of Chest Physicians, 112 East Chestnut Street, Chicago, Illinois 60611.

George Cooper Lecture Set for February 12 at University of Tennessee

The Department of Radiology at the University of Tennessee will feature an afternoon on Gastrointestinal Radiology during the Annual George Cooper Lecture to be held February 22, 1974.
Dr. Bernard Wolf, Professor and Chairman, Department of Radiology at Mt. Sinai School of Medicine, New York, will discuss Gastro-esophageal Reflux & Hiatus Hernia—One or Two Diseases and Gastric Ulcers—Current Problems.
Also, Dr. Jerry Phillips, Memphis, will discuss, The Radiographic Findings of Pancreatic Pseudo-Cysts.
The Lecture will be held in Room 112 Chandler Building, 865 Jefferson Avenue, Memphis.

* * *

Score Yourself on VD Quiz

(Answers from page 132-133)

Key for grading your performance on the venereal disease quiz: Correct answers: 1, D; 2, B; 3, C; 4, C; 5, C; 6, A; 7, C; 8, C; 9, A; 10, B; 11, A; 12, B; 13, A; 14, A; 15, B; 16, A; 17, B; 18, B; 19, A; 20, B; 21, A; 22, C; 23, E; 24, B; 25, D; 26, B; 27, D; 28, B, and 29, D.

SCORING

Percentage of Correct Answers	Number of Correct Answers (29 Questions)
90-100	27-29
80-89	24-26
70-79	21-23
60-69	18-20
50-59	15-17
40-49	12-14
30-39	9-11
20-29	8 or less

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CONTRAINDICATIONS: Hypersensitivity to any of the tetracyclines.

WARNINGS: Tetracycline usage during tooth development (last half of pregnancy to eight years) may cause permanent tooth discoloration (yellow-gray-brown), which is more common during long-term use but has occurred after repeated short-term courses. Enamel hypoplasia has also been reported. **Tetracyclines should not be used in this age group unless other drugs are not likely to be effective or are contraindicated.**

Usage in pregnancy. (See above **WARNINGS** about use during tooth development.) Animal studies indicate that tetracyclines cross the placenta and can be toxic to the developing fetus (often related to retardation of skeletal development). Embryotoxicity has also been noted in animals treated early in pregnancy.

Usage in newborns, infants, and children. (See above **WARNINGS** about use during tooth development.)

All tetracyclines form a stable calcium complex in any bone-forming tissue. A decrease in fibula growth rate observed in prematures given oral tetracycline 25 mg/kg every 6 hours was reversible when drug was discontinued.

Tetracyclines are present in milk of lactating women taking tetracyclines.

To avoid excess systemic accumulation and liver toxicity in patients with impaired renal function, reduce usual total dosage and, if therapy is prolonged, consider serum level determinations of drug. The anti-anabolic action of tetracyclines may increase BUN. While not a problem in normal renal function, in patients with significantly impaired function, higher tetracycline serum levels may lead to azotemia, hyperphosphatemia, and acidosis.

Photosensitivity manifested by exaggerated sunburn reaction has occurred with tetracyclines. Patients apt to be exposed to direct sunlight or ultraviolet light should be so advised, and treatment should be discontinued at first evidence of skin erythema.

PRECAUTIONS: If superinfection occurs due to overgrowth of nonsusceptible organisms, including fungi, discontinue antibiotic and start appropriate therapy.

In venereal disease, when coexistent syphilis is suspected, perform darkfield examination before therapy, and serologically test for syphilis monthly for at least four months.

Tetracyclines have been shown to depress plasma prothrombin activity; patients on anticoagulant therapy may require downward adjustment of their anticoagulant dosage.

In long-term therapy, perform periodic organ system evaluations (including blood, renal, hepatic).

Treat all Group A beta-hemolytic streptococcal infections for at least 10 days.

Since bacteriostatic drugs may interfere with the bactericidal action of penicillin, avoid giving tetracycline with penicillin.

ADVERSE REACTIONS: **Gastrointestinal** (oral and parenteral forms): anorexia, nausea, vomiting, diarrhea, glossitis, dysphagia, enterocolitis, inflammatory lesions (with monilial overgrowth) in the anogenital region.

Skin: maculopapular and erythematous rashes; exfoliative dermatitis (uncommon). Photosensitivity is discussed above (See **WARNINGS**).

Renal toxicity: rise in BUN, apparently dose related (See **WARNINGS**).

Hypersensitivity: urticaria, angioneurotic edema, anaphylaxis, anaphylactoid purpura, pericarditis, exacerbation of systemic lupus erythematosus.

Bulging fontanels, reported in young infants after full therapeutic dosage, have disappeared rapidly when drug was discontinued.

Blood: hemolytic anemia, thrombocytopenia, neutropenia, eosinophilia.

Over prolonged periods, tetracyclines have been reported to produce brown-black microscopic discoloration of thyroid glands; no abnormalities of thyroid function studies are known to occur.

USUAL DOSAGE: Adults—600 mg daily, divided into two or four equally spaced doses. More severe infections: an initial dose of 300 mg followed by 150 mg every six hours or 300 mg every 12 hours. **Gonorrhea:** In uncomplicated gonorrhea, when penicillin is contraindicated, 'Rondomycin' (methacycline HCl) may be used for treating both males and females in the following clinical dosage schedule: 900 mg initially, followed by 300 mg q.i.d. for a total of 5.4 grams.

For treatment of syphilis, when penicillin is contraindicated, a total of 18 to 24 grams of 'Rondomycin' (methacycline HCl) in equally divided doses over a period of 10-15 days should be given. Close follow-up, including laboratory tests, is recommended.

Eaton Agent pneumonia: 900 mg daily for six days.

Children—3 to 6 mg/lb/day divided into two to four equally spaced doses.

Therapy should be continued for at least 24-48 hours after symptoms and fever have subsided.

Concomitant therapy: Antacids containing aluminum, calcium or magnesium impair absorption and are contraindicated. Food and some dairy products also interfere. Give drug one hour before or two hours after meals. Pediatric oral dosage forms should not be given with milk formulas and should be given at least one hour prior to feeding.

In patients with renal impairment (see **WARNINGS**), total dosage should be decreased by reducing recommended individual doses or by extending time intervals between doses.

In streptococcal infections, a therapeutic dose should be given for at least 10 days.

SUPPLIED: 'Rondomycin' (methacycline HCl): 150 mg and 300 mg capsules; syrup containing 75 mg/5 cc methacycline HCl.

Before prescribing, consult package circular or latest PDR information.

Rev. 6/73



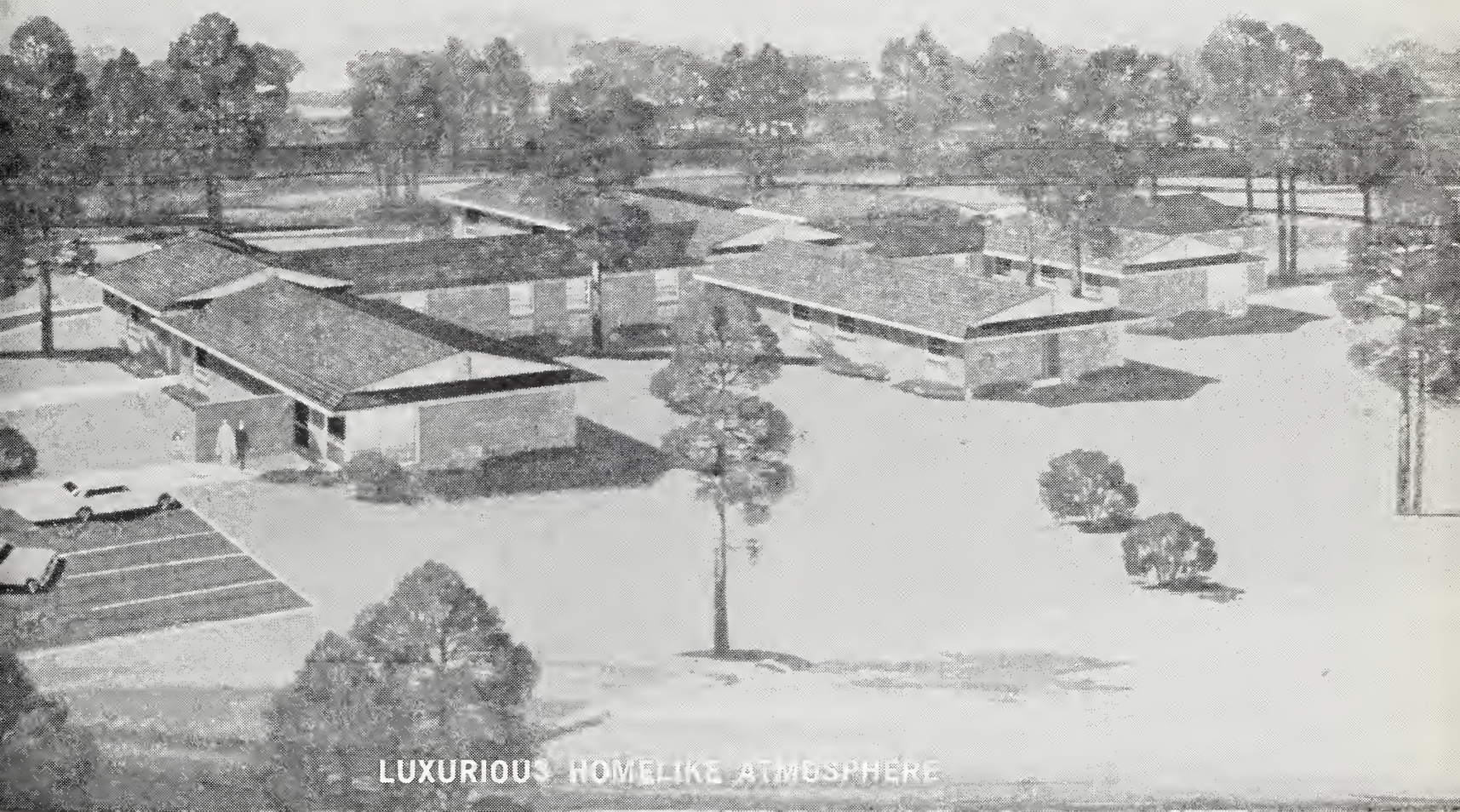
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Administrator

MEMBER GEORGIA HOSPITAL ASSOCIATION

November 16, 1973, Cape Canaveral

At 9:01 a.m. on November 16, 1973, the last scheduled manned space flight left Cape Kennedy. This mission concludes a decade of American supremacy in manned space travel.

We in medicine can learn a valuable lesson from the space program—not only from its miraculous achievements, but also from the reasons for its demise.

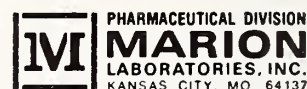
The Apollo program was designed with the initial objective of achieving a manned lunar landing and safe return to earth in the 1960's—a goal thought by many to be impossible. In July, 1969, the first astronaut took that “one small step for a man, one giant leap for mankind.” We all can recall the pride that we felt upon achieving the impossible. The space program has, of course,

produced much more than lunar landings. There are many other contributions all designed to enhance man's way of life and to add to his knowledge of his planet and the universe.

Even the best informed persons are still momentarily stymied when confronted with the fact that the Space Program costs about 25 billion dollars. But when one realizes the mere monitoring devices, a space technology product, now used in CCU's enable one nurse to do the work of many as she essentially “specials” several patients, some knowledgeable physicians have indicated this new system alone increases by 10 to 30% the coronary patient's survival rate. Converting these figures to people means 1-3 out of 10 coronary victims are living today who would have otherwise met their complete demise had it not been for the space program; therefore, I contend that the “spin-offs” alone would justify the total expenditure dollar for dollar of the space program compared to any previously attempted medical research program.

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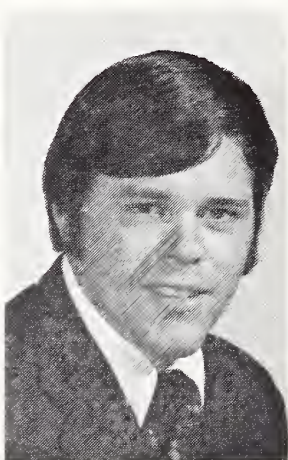
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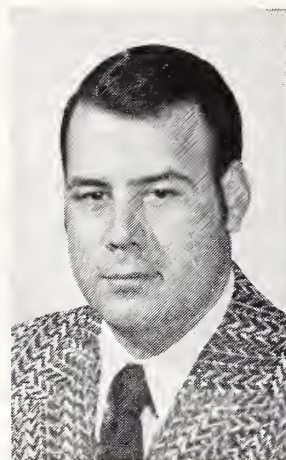
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Millions of words have been written on this subject, yet, the average American doesn't read the scientific papers or Congressional Record and has not received the message. Many of our legislators, therefore, are more interested in funding welfare programs than space programs. Why do I relate this story? Because medicine's story is similar. We are so busy practicing our art we have failed to tell the story about the best health care delivery system the world has ever known. Our medical research papers and journals are not read by the average voter either. And, likewise, what the general public knows, feels, and expresses—that's what counts. Too many members of the U.S. Congress appear determined to continue down the road of more government intervention.

The lesson which we in medicine can learn from the space program is apparent. If we are to win the battle for free enterprise, for medicine and for our patients, we must profit from the mistakes of our space program leaders. We must

find a way to get the facts to the voters—and what professional man talks to more voters each day than the doctor? The doctor, according to a recent poll, is held in the highest regard by our citizens, and the politician, sad as it is, remains far down the list. It seems incongruous to me that they should be deciding and directing our eventual fate. So Doctor, for your own survival maybe you should begin telling your patients that there is no medical crisis—and no need for PSRO, HMO, or the other alphabetical abortions.

NASA's accomplishments are unbelievable but their ineptitude in telling the story is even more amazing. Doctor, let's not make the same mistake. The alternative might be a similar type of mediocrity which many of our politicians have apparently decreed for the world's finest manned space flight program.

JOSEPH C. VON THRON, M.D.
President, FMA

—Reprinted from the *Journal of the Florida Medical Association*, Dec. 1973

* * *

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Tuberculosis in Tennessee The Problem - The Control

H. R. ANDERSON, M.D.*

The marked decline in the death rate (Fig. 1) and the case rate (Fig. 2) of tuberculosis in Tennessee is obviously gratifying, but before jubilation is excessive, we might take note of the fact that in spite of the above figures, Tennessee's rank among the fifty States in 1972 was still fifth highest in the new active case rate. We had 929 new active cases of tuberculosis, a rate of 23.0 per 100,000 population, as compared with the National Case Rate of 15.8 per 100,000.

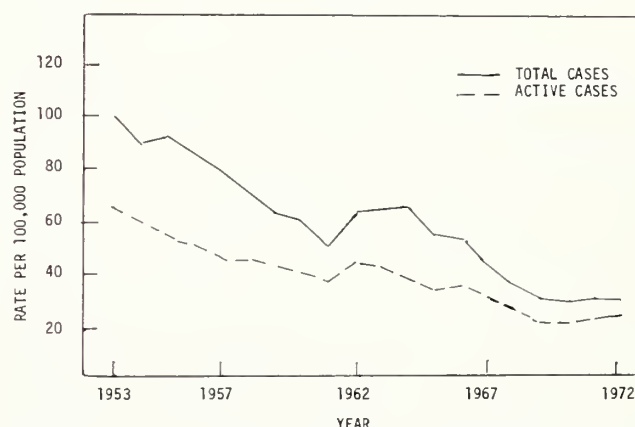
The decline in death and case rates reflects many things, some of which are listed as landmarks in the Tennessee Control Program (Fig. 1). Not mentioned, however, are improved nutrition, housing, and improved general medical care. The one major development that has made necessary complete reappraisal in recent years of the treatment and prevention programs and, indirectly, the case-finding programs, is the availability of effective anti-tuberculosis drugs, especially Isoniazid.

Other major observations making possible, and necessary, reappraisal of treatment programs and length of hospitalization of the tuberculosis patient, occurred in the mid 1950's and 1960's. First, was the observation by Weir¹ at Fitzsimmons Army Hospital, that prolonged bed rest was no longer necessary in treating patients that were on adequate anti-tuberculosis medication (usually after only a few weeks) once their acute symptoms abated; second, the acceptance of the fact that tuberculosis under treatment with adequate medication became non-infectious at a much earlier date than previously was believed, as documented by Riley.² Also, by the mid 1950's collapse therapy (temporary or perma-

nent) was largely replaced by drug therapy and resectional surgery of significant residual disease. The need for hospitalization for surgery for

FIGURE 2

TUBERCULOSIS CASES REPORTED PER 100,000 POPULATION, TENNESSEE, 1953 - 1972



CASES REPORTED	1953		1972		PERCENTAGE DECREASE
	NUMBER	RATE	NUMBER	RATE	
TOTAL CASES	3,402	100.6	1,252	31.3	61.9%
ACTIVE CASES	2,280	67.4	929	23.0	65.9%

PERCENTAGE OF TOTAL CASES REPORTED AS ACTIVE:

1953 - 67.0%

1972 - 74.2%

SOURCE: TENNESSEE DEPARTMENT OF PUBLIC HEALTH

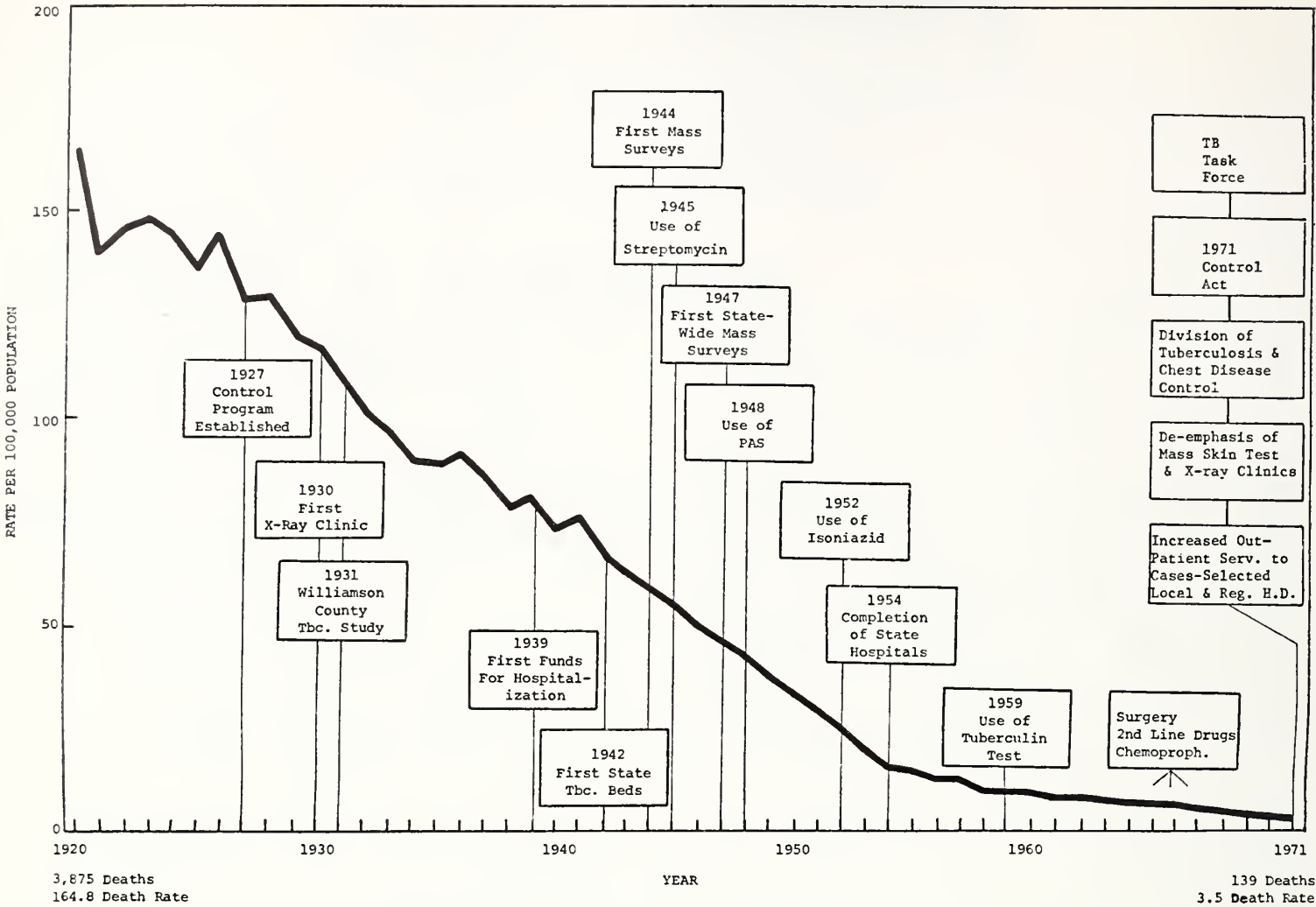
tuberculosis was not found to be indicated in the major portion of cases when Cope³ and his associates documented the "open negative state" and "open healing" of cavitory lesions and the relative infrequency of relapse in cavitory residual disease in patients adequately treated with anti-tuberculosis agents.

These observations have led to marked reduc-

From the Division of Tuberculosis and Chest Disease Control, Tennessee Department of Public Health.

* Director, Middle Tennessee Field Service.

FIG. 1. Tuberculosis death rate per 100,000 population, and landmarks of control program, Tennessee 1920-1971



Source: Tennessee Department of Public Health

tion in the need for prolonged hospitalization. The exceptions are the non-tuberculous complications co-existing in patients with tuberculosis and the occasional drug resistant case.

THE OUT-PATIENT APPROACH

Early hospital discharge is common. Entire out-patient treatment of active cases or out-patient treatment preceded by brief hospitalization in appropriate general hospitals is also utilized in some cases.⁴ Hospitalization is desirable in most cases to accomplish diagnostic procedures and to institute anti-tuberculosis drug therapy so that early signs of toxicity or intolerance may be recognized and dealt with. This period of time is also useful in instructing the patient in the needs of post-hospital care.

The impact of these realities on our state program has been to point up a need for, and now the development of, an enlarged out-patient service to follow the cases. This program includes holding monthly clinics in selected county health departments where cases can be evaluated

and recommendations made by a clinician of the Division of Tuberculosis Control. Active and recently active patients on drug therapy are seen monthly by a public health nurse or a tuberculosis program assistant to ensure that medication is being taken and, if not, to determine why not, and to be as certain as possible the patient is not having drug toxicity; also to see that x-rays and sputum examinations are done at appropriate intervals.

The key to the success or failure of the program lies in the regular and uninterrupted administration of anti-tuberculosis drugs for a prolonged time. A very good generalization is that it still takes as long now as it did twenty years ago to recover from tuberculosis and remain well. The period of time is still from one to three years and the only differences are that most patients receive the major portion of their treatment at their home while engaged in the normal physical activities that were carried out before the diagnosis of tuberculosis was made. Usually the only requirements at home are that

they take the prescribed medication regularly, that they see their physician and/or public health physician or nurse approximately once a month and that sputum examinations and x-rays are made at regular intervals. When they reach the quiescent and later, the inactive state, less frequent interval examinations are required. The duration of drug treatment is dependent upon the extent of the disease, the patient's response and usually is from eighteen to thirty-six months.

LOCATING THE NEW TB VICTIM

It is important to note that infectiousness of the disease and activity of the disease are no longer necessarily synonymous.² Non-infectiousness occurs before the patient can be technically called inactive by current diagnostic Standards and Classifications as set forth by the National Tuberculosis and Respiratory Disease Association.

Case finding programs now must be more selective. It has been demonstrated that Mobile X-ray Unit Surveys are no longer justified and Mass Skin Testing Projects are not significantly productive of new cases of tuberculosis. (Table 1). The State Mobile X-ray Units are now used almost exclusively for holding routine county clinics where known Tuberculosis patients, contacts, suspects and others known to be at high

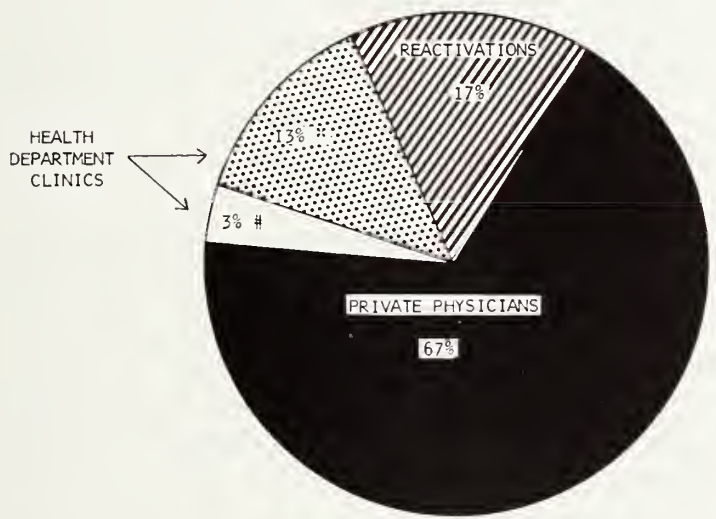
risk receive x-ray examinations. Most of our new active cases of tuberculosis are now found by private physicians in the course of evaluation of symptomatic pulmonary disease, or in patients who have chest x-rays because they are hospitalized or under treatment for some other disease. Other significant sources of cases are household and close contacts to cases of tuberculosis (Table 1) and the reactivation of cases previously considered inactive but inadequately treated with anti-tuberculosis drugs (Fig. 3).

Another group at increased risk of developing active tuberculosis are tuberculin reactors, especially those who have become reactors recently, or who have other complicating diseases or problems such as diabetes, post-gastrectomy state, silicosis or reticuloendothelial disease; children with measles or whooping cough, or who receive measles vaccine, as well as the tuberculin reactors who take steroids or immuno-suppressive drugs or have "non-specifically abnormal" x-rays.⁵ Unless there are contraindications, these patients should receive chemoprophylaxis with Isoniazid to prevent overt tuberculosis disease.

The prevention program relies on prompt diagnosis of the sputum positive cases followed by adequate drug therapy to convert their positive sputum to negative. The other part of the preventive program is the administration of Isoniazid prophylactically for a sufficient period of time (currently one year) to tuberculin reactors at high risk as noted above. Chemo-prophylaxis is recommended with INH only if the patient can be monitored adequately (usually once a month) by his private physician, the

FIGURE 3

SOURCE OF NEWLY DEVELOPED ACTIVE CASES
WEST TENNESSEE FIELD SERVICE DISTRICT, 1971



** X-RAYED BECAUSE OF CONTACT, SYMPTOMS OR PREVIOUS PATHOLOGY
X-RAYED FOR EMPLOYMENT PURPOSES, FOLLOW-UP TO MASS SCREENING, ETC.

SOURCE: Tennessee Department of Public Health

MARCH, 1974

TABLE 1

COMPARISON OF RESULTS OF CASE FINDING ACTIVITIES IN ROUTINE HEALTH DEPARTMENT CLINICS AND MASS SURVEYS WITH RESULTS OF CONTACT FOLLOW-UP EXAMINATIONS, DIVISION OF TUBERCULOSIS AND CHEST DISEASE CONTROL*

JULY, 1970 - JUNE, 1971

GROUP	PERCENT TUBERCULIN REACTORS	YIELD - NEW ACTIVE CASES/1,000 EXAMS
ROUTINE HEALTH DEPARTMENT CLINICS	8.8	1.3
MASS SURVEYS	3.9	0.9
CLOSE CONTACTS TO NEWLY DEVELOPED ACTIVE CASES:		
HOUSEHOLD CONTACTS	36.1	20.9
NON-HOUSEHOLD CONTACTS	23.4	7.3

*EXCLUDES DATA FROM DAVIDSON, HAMILTON, KNOX AND SHELBY COUNTIES

SOURCE: Tennessee Department of Public Health

public health nurse, or program assistant, and only on an individual basis dependent upon what his risk of developing active tuberculosis is. This is done realizing full well the rare occurrence of INH-related hepatitis.

It is hoped that all the measures available to us in treatment of cases and contacts can be recommended and applied with the individual in mind. It is also our goal that the Program be accomplished with as little loss of personal freedom by the patient and with as little interference as possible with private medical care, while at the same time protecting the health of the public during the period of infectiousness.

Planning for the future is important when we consider the anticipated and hoped for further reduction in new active cases of tuberculosis. Other States with lower case rates and fewer tuberculin reactors seem to be able to deal with their problem within the general framework of clinic or office management after the new cases have a brief period of hospitalization in a properly equipped and staffed hospital. Tennessee's

program looks forward to and plans for the future as we consider the patient's needs and the development of the new regional health departments.

Note: Charts and graphs from Tennessee Department of Public Health, Statistical Service, and Division of Tuberculosis and Chest Disease Control.

REFERENCES

1. Weir, JA, et al: The Ambulatory Treatment of Patients Hospitalized with Pulmonary Tuberculosis. *Ann Int*, 47:762, 1957.
2. Riley, RL: The Hazard is Relative. Editorial: *The Amer Rev Resp Dis*, 96:623, 1967.
3. Cope, RF, and Blalock: "Open Negative" Tuberculosis. *The Am Rev Resp Dis*, 98:954, 1968.
4. Curry, FJ: "The Effect of Acceptable and Adequate Out-Patient Treatment on the Length of Hospitalization and in Readmission for Relapse or Reactivation of Pulmonary Tuberculosis." *Chest*, Vol. 63:536, 1973.
5. Preventive Treatment of Tuberculosis—A Joint Statement of The Am Thoracic Soc and National Tuberculosis and Resp Disease Assc and the Center for Disease Control. *Am Rev Resp Dis*, 104:461, 1971.

* * *

Clinical Center Study of Patients With Primary Breast Cancer

The cooperation of physicians is requested in the referral of patients with suspicious lesions or proven breast cancer for studies now in progress at the Clinical Center, National Institutes of Health in Bethesda, Maryland. These studies are being conducted by the National Cancer Institute's Medical Breast Cancer Service and Surgical Breast Oncology Section.

It is desirable to receive referrals prior to definitive surgery in order to evaluate diagnostic techniques, estrogen binding protein status of the tumor, pathological characteristics of the tumor, and tumor markers.

In the event this is not possible, postoperative patients will be considered for adjuvant chemotherapy studies. It is anticipated that adjuvant immunotherapy will soon be utilized as well. Postoperative patients meeting the following criteria will be considered:

- 1) Less than 65 years of age,
- 2) Primary breast lesions of any size but without fixation to the chest wall or involvement of the skin,
- 3) Before or after performance of a radical or modified radical mastectomy,
- 4) Demonstration of at least one histopathologically positive axillary node,
- 5) No evidence of disease outside of the breast and axillary contents.

All operative reports, pathology reports, blocks, and slides must be forwarded with the patient for review.

Physicians interested in further details or in having their patients considered for admission may write or telephone:

Douglass C. Tormey, M.D., Ph.D.
Chief, Medical Breast Cancer Service
NCI, Clinical Center, Room 6B17
Bethesda, Maryland 20014
Telephone: (301) 496-1547

Jejunioleal Bypass for Morbid Obesity: Appraisal of Results in 100 Patients

H. W. SCOTT, JR., M.D., R. H. DEAN, M.D., H. J. SHULL, M.D., F. W. GLUCK, M.D.
H. S. ABRAM, M.D., WARREN WEBB, Ph.D., R. K. YOUNGER, B.A. and A. B. BRILL, M.D.

Mild obesity may present little more than a cosmetic problem. However, when it attains the Gargantuan level of the fat man or woman in the circus the hemodynamic and metabolic alterations pose a serious life shortening threat. Certainly, when it reaches this enormous degree, it is best termed *morbid obesity*. Although no precise definition for this syndrome is generally accepted, we identify morbid obesity as existing in any person whose weight has reached a level two to three more times his ideal weight and who has maintained this level of obesity for five years or more despite efforts by himself, family, friends, and physicians to bring about effective and sustained reduction of weight to medically acceptable standards.

The management of massive intractable obesity has been the focus of investigation in numerous centers in recent years. The record of accomplishment in medical treatment of such persons by dietary restriction, including rigid in-hospital dietary programs of 800 to 0 calories per day for periods up to 300 days, has been marred by the extremely high rate of recurrence of obesity once rigid conditions of dietary control are relinquished. The basis for a surgical approach to this problem is the dual premise that massive obesity of the "fat man in the circus" variety is a serious disease of life-shortening severity and that long-term dietary control is usually unsatisfactory.

In a clinical and metabolic study of obesity and the effect of surgical management we have now employed jejunioleal bypass in over 100 patients over the past six years. These patients were selected for operative management from a much larger group of obese subjects after an intensive in-hospital appraisal of their clinical, endocrinologic, metabolic, psychiatric, and body compositional status according to the following criteria: 1) Obesity of massive degree (weights of two to three times ideal levels) of at least 5 years' duration. 2) Evidence from attending physician indicating failure of dietary efforts to

correct obesity over a period of years. 3) Evidence from patient's history and evaluation indicating patient's apparent incapability to adhere to prescribed dietary regimen and/or exercise programs. 4) Absence of any correctable endocrinopathy (such as hypothyroidism or Cushing's syndrome) which might be the cause of obesity. 5) Absence of any other unrelated significant disease which might increase operative risk. 6) Presence of certain complications such as Pickwickian syndrome, hyperlipidemia, adult onset of diabetes, and hypertension which might be alleviated by significant weight reduction with intestinal bypass. 7) Assurance of patient's cooperation in conduct of pre and postoperative metabolic and body compositional studies and prolonged follow-up evaluation.

The end-to-side jejunioleal shunt described by Payne and DeWind² was employed in the first 11 patients.³ Because of dissatisfaction with the rate and extent of weight loss in some of these patients we have used a different principle of jejunioleal bypass in the subsequent patients: following the new principle the jejunum was divided a few inches from the ligament of Treitz and its proximal end anastomosed to the distal end of transected ileum a few inches proximal to the ileocecal valve. The long length of bypassed jejunioleum was drained by anastomosis of its ileal end to transverse colon or sigmoid.^{4,5}

Clinical Appraisal of Patients

One hundred massively obese patients who were selected by the above criteria were submitted to jejunioleal bypass during a 6 year period ending in July, 1973. Ages ranged from 16 to 63 years (average 36 years). There were 62 women and 38 men. There was a long history (5 to 10 years or more) of massive obesity refractory to dietary control in each instance. Maximal weights prior to operation ranged from 280 to 600 pounds (127 to 272 kg.). Immediately before operation weights ranged from 230 to 560 pounds (105 to 255 kg.). Preoperative clinical evaluation of the 100 patients in this study revealed a variety of abnormalities in addi-

From the Department of Surgery, Medicine, Psychiatry and Radiology, Vanderbilt University Medical Center, Nashville, Tenn. 37232.

tion to massive obesity. A family history of massive obesity in individual parents, grandparents or siblings was elicited in about half of the patients. Eighteen patients had gallstones and twelve others had had a previous cholecystectomy. Thirty-eight patients had glycosuria and diabetic glucose tolerance tests. Endocrine status was otherwise normal. Hypertension was present in 17 patients. Hyperlipidemia and hyperlipoproteinemia existed in 51 patients.

Plan of Study

In an effort to determine the optimal dimensions of the end-to-end jejunoileal bypass procedure the following plan has been followed in these patients. Twelve to eighteen inches of proximal jejunum were joined by end-to-end anastomosis to the distal 12 inches of ileum in the first 12 patients. In ten of this group 12 inches of proximal jejunum were used. In all subsequent patients the proximal 12 inches of jejunum were joined end-to-end to the ileum 6 to 8 inches from the ileocecal valve. In the first 21 patients of the latter group the jejunum was joined to the ileum 6 inches proximal to the ileocecal valve and in the subsequent group of patients the anastomosis has been made 8 inches from the ileocecal valve. In this report we shall compare the clinical results of the group of 11 patients who had Payne's operation with the results of the groups of patients who had the several dimensional variations of end-to-end jejunoileal shunt.

Operative Procedure

Preoperative preparation included a 3 to 5 day bowel cleansing regimen involving liquid diet, castor oil, cleansing enemas and oral kanamycin. The early patients were anesthetized with endotracheal fluothane, but "balanced anesthesia" is now used. For the larger patients a delivery table was substituted for the standard operating table. A 15 to 20 minute scrub of the large redundant expanse of skin of the abdomen, chest, perineum and upper thighs was carried out in each instance with an iodine containing soap solution. A long transverse supraumbilical incision was used in most patients. The redundant fatty apron has been excised by a transverse elliptical incision in a few patients. Rectus muscles were divided transversely and after entering the peritoneum a plastic wound protector was inserted. The use of large retractors coupled with liberal administration of muscle relaxants facilitated exposure of the coelomic cavity. A biopsy

JEJUNOILEAL BYPASS FOR OBESITY

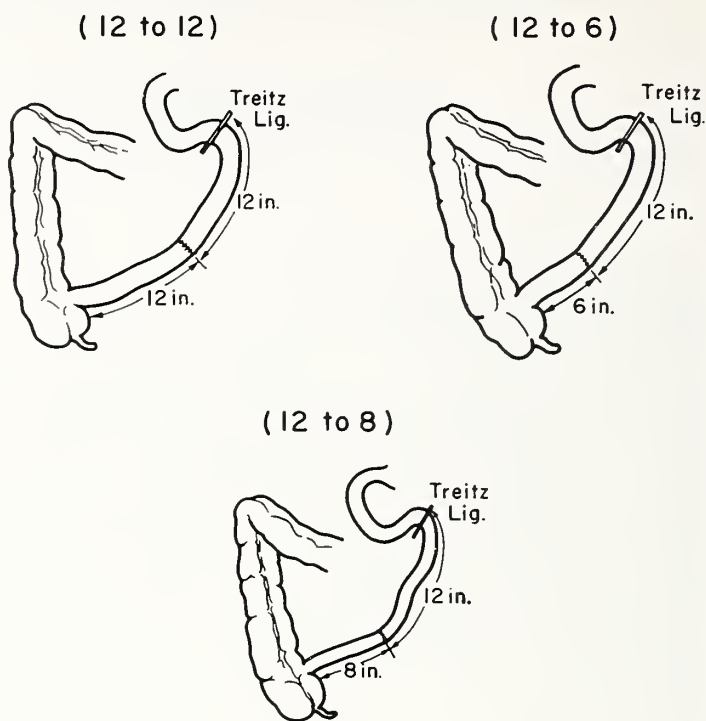


FIGURE 1. Schematic diagrams of the several dimensions of end-to-end jejunoileal shunt used in this study.

of the liver was routinely performed. Figure 1 shows schematic diagrams of the several dimensions of intestinal bypass used.

RESULTS

There were 3 postoperative deaths in the series. One followed mesenteric venous thrombosis after simultaneous extensive ileal and mesenteric resection for carcinoid; another from pulmonary embolism; and a third from pneumonia and sepsis. Non-fatal complications occurred in 27 patients. These included wound seroma in 10 patients and superficial wound infection in 13 others. One of these also developed stomal obstruction which required revision and venous thrombosis with pulmonary emboli. One other patient had thromboembolic complications. Two patients developed early postoperative hepatitis due, we believe, to halothane anesthesia. All of these patients recovered with appropriate treatment.

In the majority of patients, recovery from operation was uneventful. Nasogastric suction was discontinued 3 to 5 days after operation and oral liquids, usually restricted to 1500 ml daily, were started. In the first few days after institution of oral liquids multiple watery stools occurred. Low fat diet, restriction of fluids with meals and diphenoxylate hydrochloride in a dosage of 5 mg three to four times a day or Codeine

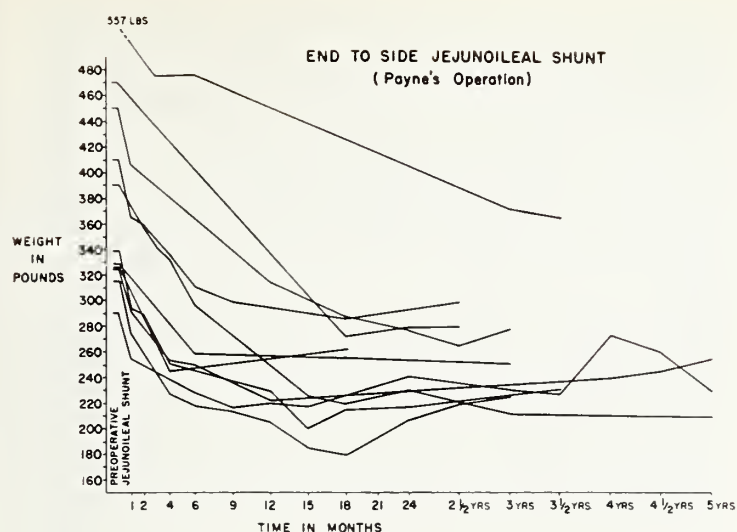


FIG. 2A

FIGURE 2. Chronology of weight loss after jejunioleal bypass for obesity.

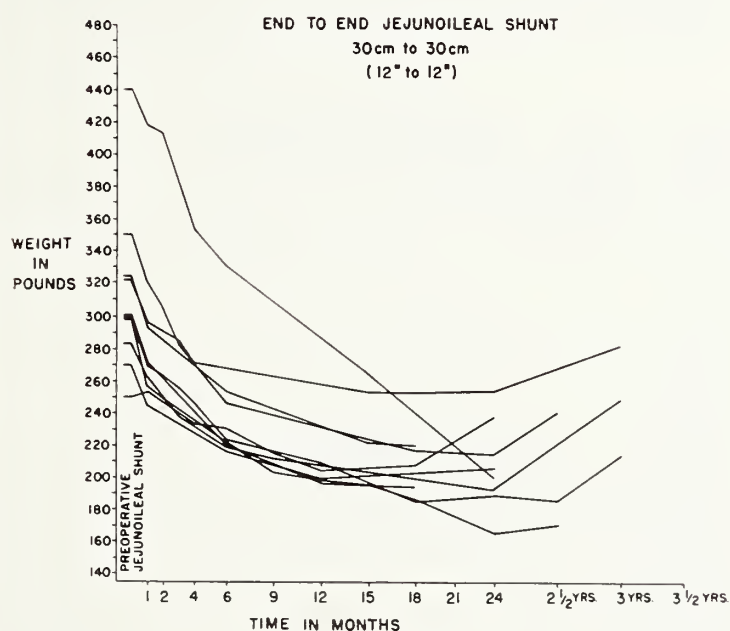


FIG. 2B

15 to 30 mg three to four times a day usually resulted in control of the diarrhea during the early postoperative period. After discharge from the hospital each patient has been followed in conjunction with the family physician and in our clinic. Periods of follow-up in the groups under study range from a few months to 6 years.

The chronology of weight loss after jejunioleal bypass in the four groups is illustrated in graphic form in Figure 2. Although early precipitate weight loss occurred in each group, those with Payne's operation and those with the 12 inches to 12 inches end-to-end jejunioleal shunt subsequently lost weight more gradually and their weights tended to plateau after 12 to 18 months at levels above ideal range. After 2 or more years a majority in these two groups has begun

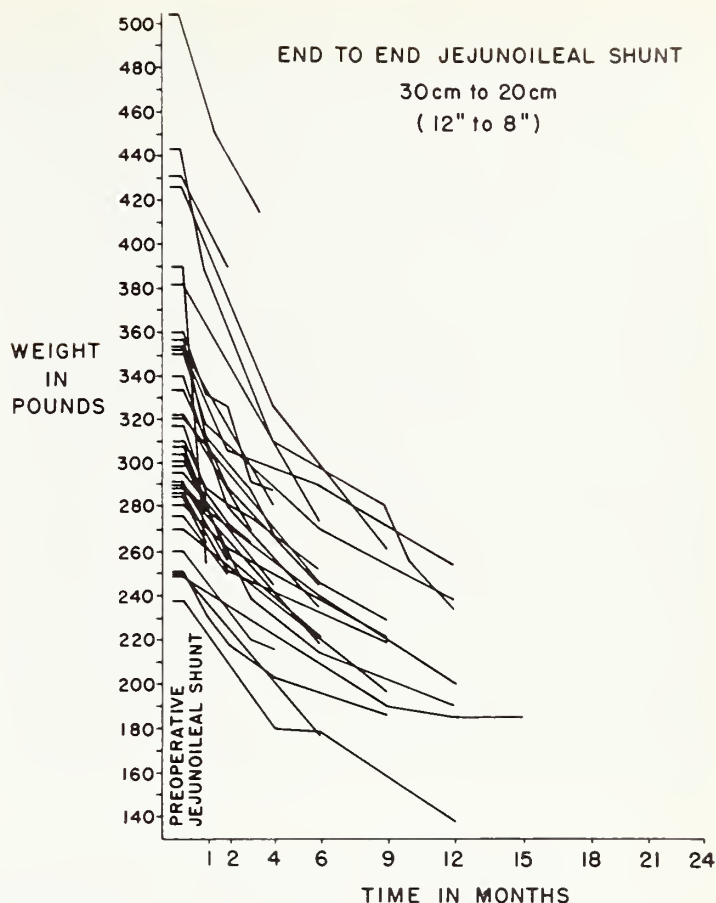


FIG. 2C

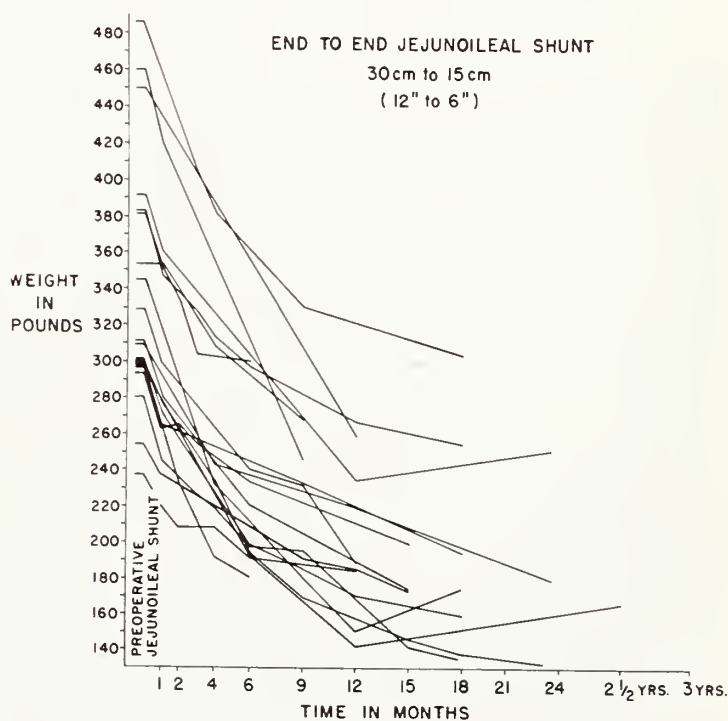


FIG. 2D

to regain weight. In contrast, patients in the groups of end-to-end jejunioleal shunt with 12 inches of jejunum joined to 6 or 8 inches of distal ileum have had a more rapid rate of weight loss during the first year after operation. The graphs show that 70% of patients in these groups followed for one year or more have achieved

reductions to the range of ideal weight.

Sequential measurements of metabolic and body compositional parameters have been made in most of the patients during the follow-up period. A large increase in fecal fat loss has occurred in each patient in whom it has been possible to measure this in the period after jejunoileal bypass. Malabsorption of fat by interference with enterohepatic cycles of cholesterol and bile acids has been accompanied by an impressive and sustained fall in serum cholesterol and triglyceride levels in all patients. As can be discerned from figure 3, irrespective of baseline levels, there has been an impressive fall in both serum cholesterol and serum triglyceride concentrations. These reductions have been maintained below 160 mg/100 ml throughout the periods of followup. Reduction in carbohydrate absorption is indicated by impairment in d-xylose

tolerance in the patients in whom this has been measured after operation and by the flattening of oral glucose tolerance curves in the postoperative period. Details of other metabolic parameters have been reported separately.^{1,5}

Diarrhea ceased within 1 to 3 months after bypass in all patients in the 12 inches to 12 inches group and in 8 of the 11 patients in the Payne group. Postoperative diarrhea has persisted for a slightly longer period in most of the patients of the 12 inches to 6 inches and the 12 inches to 8 inches groups. Persistent diarrhea has been a problem for 45% of patients in the 12 to 6 inch group. In contrast only 17% of the 12 to 8 inch group have had this problem. Electrolyte deficits requiring supplementation have only occurred in patients with persistent diarrhea. Other late complications have included incisional hernia in 10 patients, ureteral stone in 5, hepatitis due to

CHANGES IN SERUM CHOLESTEROL AND TRIGLYCERIDES AFTER JEJUNOILEAL BYPASS

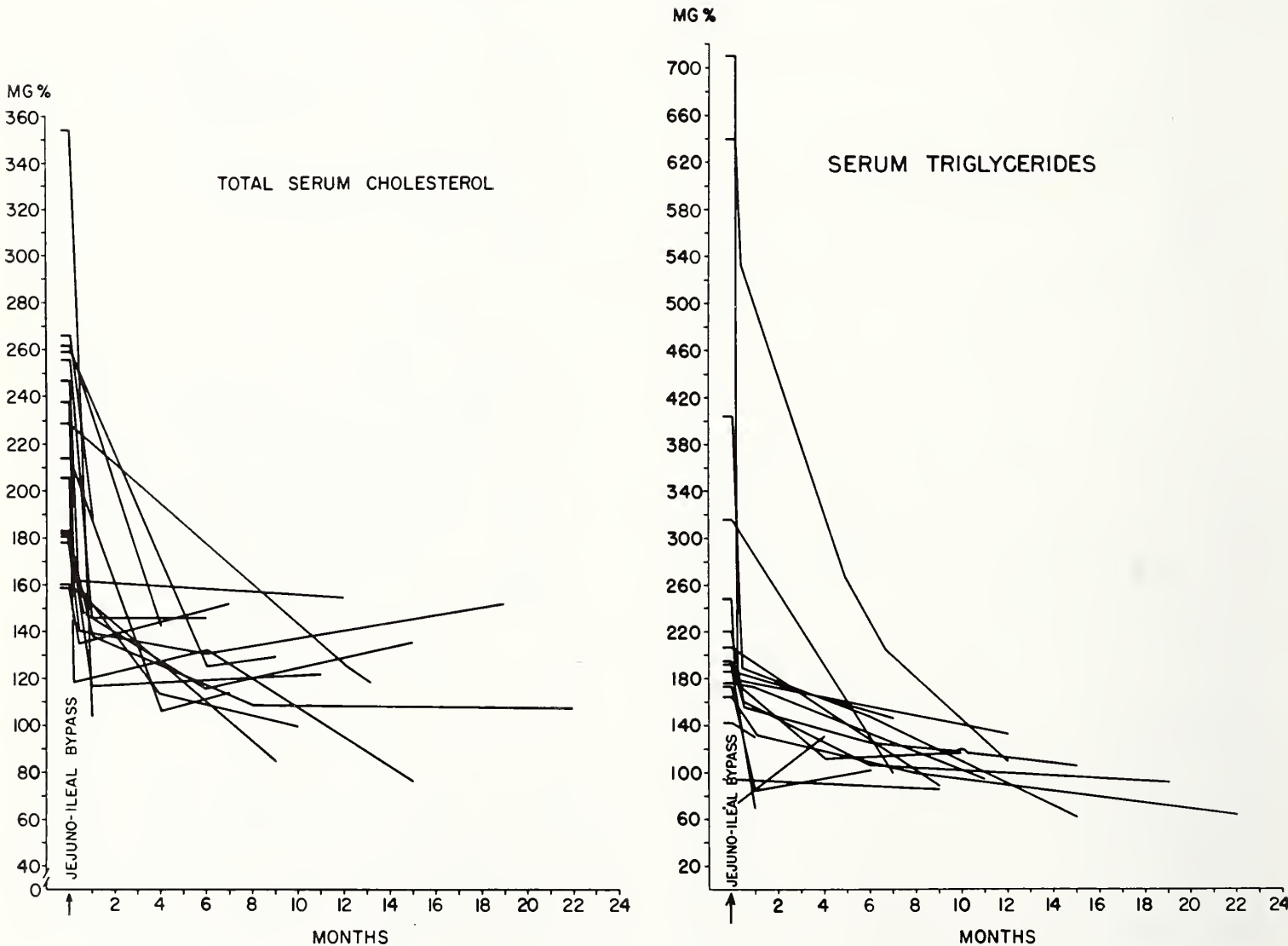


FIGURE 3. Changes in serum cholesterol and triglyceride concentrations after jejunoileal bypass.

alcohol abuse in 2 and from unknown causes in 2 others. Late stomal obstruction required operative revision in 1 patient, and unexplained melena has caused anemia in another. The Jejunioileal shunt was ultimately taken down in the 2 patients with alcoholic hepatitis (one died) and in another because of severe anxiety and persistent diarrhea.

Follow-up results based on the criteria listed in Table I have been appraised critically in all patients of each group who have been followed for one year or more after jejunoileal bypass.

The results of this appraisal are depicted in Table II.

TABLE I
100 OBESE PATIENTS
CRITERIA IN APPRAISAL OF RESULTS

GOOD	Weight Loss Satisfactory No Diarrhea Problem No Metabolic Deficits
FAIR	Weight Loss Not Ideal Mild Diarrhea on Occasion Minimal Metabolic Deficits
POOR	Weight Loss Unsatisfactory Persistent Diarrhea Severe Metabolic Deficits

TABLE I. Criteria used in appraisal of results 1 to 6 years after jejunoileal bypass.

TABLE II
100 OBESE PATIENTS
RESULTS OF FOLLOW-UP AFTER
JEJUNOILEAL BYPASS

	Years	Good	Fair	Poor
PAYNE PROCEDURE	3-6	1	3	7
END-TO-END JEJUNOILEAL SHUNT				
30 CM to 30 CM (12" to 12")	2-3	3	5	2
30 CM to 15 CM (12" to 6")	1-2	10	8	2
30 CM to 20 CM (12" to 8")	1	15	2	1

TABLE II. 100 obese patients. Results of follow-up after jejunoileal bypass.

Comments

The problems of etiology and practical management of morbid obesity are as yet unsolved. The serious social, economic, and health complications of this unfortunate disorder warrant continued study. The major obstacle to successful medical therapy seems to be the patients' lack of ability to control his gluttonous dietary habits over a prolonged period of time. For these

reasons serious consideration has been given to operative procedures which induce and maintain weight loss despite the patient's continued gluttony.

Initial experience with extensive intestinal bypass and jejunocolic anastomosis demonstrated that obligatory weight reduction could be achieved in these patients, but the excessive diarrhea and serious metabolic complications prompted the continued search for a more acceptable procedure.

This study compares the responses of a carefully selected group of 100 massively obese subjects to four operative variations of extensive small intestinal bypass with anastomosis of proximal jejunum to distal ileum. In most of the patients who had Payne's operation or the 12 inches to 12 inches jejunoileal shunt satisfactory weight reduction was not achieved. Although satisfactory weight reduction resulted after the 12 inches to 6 inches jejunoileal shunt, persistent diarrhea and attendant metabolic deficits limit its wide clinical application. The best results have been obtained after the 12 inches to 8 inches jejunoileal shunt where satisfactory weight loss has been accompanied by minimal problems with diarrhea and metabolic deficits.

Studies of body composition after jejunoileal bypass indicate that both body fat and lean muscle mass are lost in these individuals in the early postoperative period. The loss of lean body mass is proportionately greatest in the 12 to 6 group concomitant with the most prolonged difficulty with diarrhea. In all groups, however, potassium homeostasis has been achieved by 4 to 6 months and subsequently fat is lost in preference to lean body mass.

The degree of rehabilitation achieved by the majority of patients in this study has been impressive to us. The large reduction in serum lipid concentration as well as the large reduction in body fat which result from jejunoileal bypass in obese patients should be of value in halting the progress of atherosclerosis and its accompanying cardiovascular manifestations. We believe that the results to date warrant continuation of this study with mandatory long-range metabolic and nutritional follow-up.

REFERENCES

1. Brill, AB, Sandstead, HH, Price, R, Johnston, RE, Law, DH, IV and Scott, HW, Jr: Changes in body composition after jejunoileal bypass in morbidly obese patients. *Am J Surg*, 123:49, 1972.

continued on page 214

Evaluation of Heart Sound Screening in a Rural Setting: Medical and Economic Effectiveness*

THOMAS LOWRIE LYON, PH.D.

In September of 1972 the American Heart Association Task Force stated that they did not recommend heart sound screening programs for the detection of heart disease in children. The statement was qualified in the following manner.

"There may be a place for these (heart sound screenings) in the overall program of an American Heart Association affiliate where such programs are on-going, promote goodwill, assist in the initiation or continuation of lay or professional education programs, or provide a resource for unusual local problems."¹

A recently completed study may shed some additional light on the question of the cost and effectiveness of mass screening using computers.² The study, involving 26,616 students, is by far

the largest examination of school children recorded in the journals. (See Table 1).

Of the 26,616 fourth through seventh grade students screened, a major portion came from a low income rural setting, and most of the remaining students were from low income urban areas. Examinations were carried out in the schools over a three-year period. The examining conditions appear not to be as good as those indicated in previous studies.

The initial screening was carried out with the use of technicians and the Phono-Cardio-Scan (PCS) computer. The secondary screening of the positives was handled through donated physician time. These physicians ranged in background from family practice to those specially trained in heart sound detection. Those still considered as

TABLE I

Study Name	Year Study Completed	Number of Children Screened	Clinical or School	Cost per Child Screened	Cost per previously undiagnosed heart disease	Average time per Child Screened	Number per 1000 found With Heart Disease	Number per 1000 new Heart Disease	% of original number referred to physician positive	% of original number referred for complete evaluation	% of total found negative	Number defective label per 1000	False Positive rate	False Negative	Sensitivity PCS True Positive Accuracy	Specificity PCS True Negative Accuracy
Chattanooga Area Heart Association PCS	1973	26,616	S	\$2.62 TC	\$364 TC \$541 TC	4-5 Min. 60-75 per day	Under physician care 9.2 6.8	Under physician care 7.2 4.8	14.9%	3.1%	85.1%					
Chattanooga Area Heart Association Physician Screening	1963 1964	2,707	S			1 1/2 min. 40/hour			5%	2.6%						
Beckman Handbook for Technicians	1966	5,000	C	.48¢			5		7%	0.9%						
Benefits from Mass Evaluation of School Children	1967	6,625	S	.74¢	\$128	100 per 1 hour cardiologist time		5	18.8%		78.5%					
A New Approach Heart Disease Screening of Pre-School Children	1967	2,125	S			3 min.	4.65	2.1	5%			4	6.2%	.02%	83.3%	93.7%
New Electronic Devices Zip through Mass Heart Screening	1969	3,963	S	\$1.40	\$300	2-3 min. 50-80 day	8	4+		1%		28			70-80% Field 98%CHD 89%RED Clinic	95%
Heart Sound Screening in Children Durnin	1966	708	C										5.9%	.04%		
The Rapid Detection of Heart Disease in Children Humetrics Corporation			C	50¢ \$1.00		Actual PCS Time 1 min.		2-5	up to 5%		95%	up to 20+	5%	2%		
Heart Sound Screening in Children	1965	3,797	S	\$3.80	\$1450	100 per day	4.16	2	10% 5-6% with re-screen							
Auscultation of the Heart Disease by Machine and Physician	1966	308	Clinic Control Group			(Specifically controlled group, specifically selected for test. A non-normal population)							13% Control Group	11.5% control Group	83.6% RHD	88.5% RHD

*From the University of Tennessee at Chattanooga.
¹ Joint Council/Community Program—Task Force Recommendations for Medical Education and Community Program Priorities, American Heart Association, September 30, 1972.
² Heart Sound Screening Evaluation, Chattanooga Area Heart Association, March 1973.

positive heart disease suspects were referred on for complete evaluation to either their family physician or a children's heart clinic, dependent on parent prerogative and resource limitation.
The total cost of the three-year study, including an estimate for donated physician time was

\$69,949 or \$2.62 per child positively benefited (screened).³ Of the 26,616 screened with PCS, 14.9% (3,970) were referred for secondary screening by a physician. This represents a substantially higher percentage of positives than indicated in most of the previous studies. (See Table 1).

Of the group referred for secondary screening, 835 or 3.1% of the total screened were found to need a complete evaluation. Of this latter group, 187 of the 20,246 completed cases were considered to need clinical or physician care (defined as some form of heart problem): 41 previously known cases, 97 new cases under care, and 49 new suspect cases requiring a recheck in one year. Approximately 9.2 children per thousand were considered to need clinical or physician care, and 7.2 per thousand of these were new

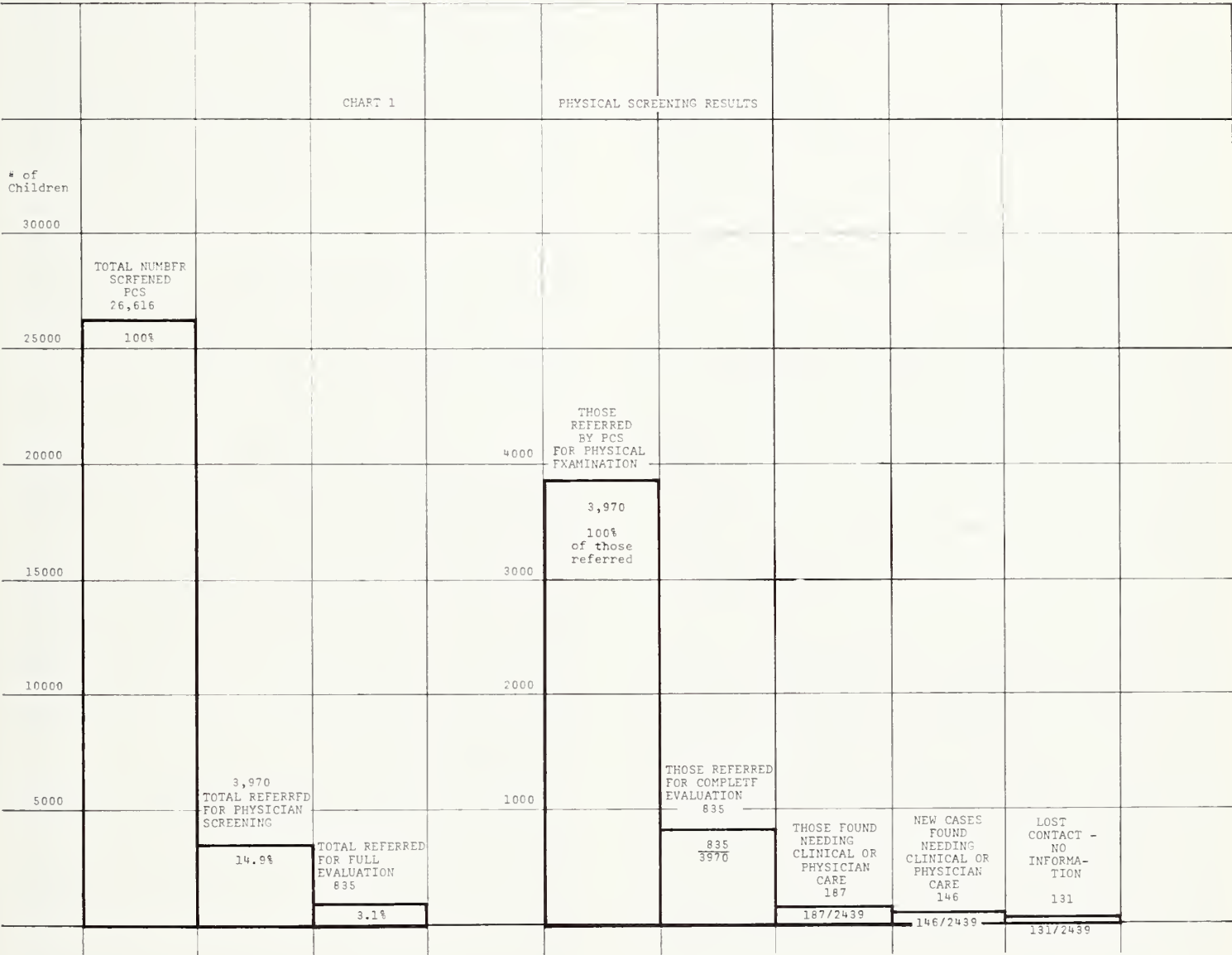
cases. If one wishes to exclude the one year recheck of suspect children, the figures fall to 6.8 and 4.8 per thousand respectively. (See Chart 1).

The cost per case of new found heart disease was \$364 based on the 7.2 per thousand figure and \$541 using the 4.8 figure. Table one makes this comparison and most other medical and economic comparisons with the other major screening studies.

RECOMMENDATIONS AND CONCLUSIONS

Recommendations and conclusions can be made from the study data in three topic areas: (1) effectiveness of mass computer screening, (2) cost, and (3) improving cost-effectiveness of screening.

(1) The efficiency of mass computer screen-



³ The total cost was broken down in the following manner: The total direct expenses (including the un-amortized cost of two PCS computers—\$8000) was \$51,514, the overhead allocation was \$10,734, and the cost of physician time was imputed as \$7,600.

ing must be questioned in light of the high number of positive cases (14.9%) referred for physician screening. This rate is substantially higher than the 5-7% range achieved in other recent

studies (See Table 1). The 14.9% rate was obtained with double computer screening of all positive cases.⁴

Part of the high referral rate can be attributed to two problem areas: (a) lack of quiet adequate screening facilities in the schools, and (b) inadequate preparation and education of children, teachers, parents, and administrators. The positive referral rate could be reduced through school-screening agency cooperation to achieve screening areas more conducive to clinical screening conditions. But more important, the screening agency must sell teachers and school administrators on the positive educational and service facets of the program. There is no reason that a special or continuous program of health education cannot be built into the school curriculum. Specifically, a heart week could precede the actual screening, with classroom presentations on health maintenance, disease prevention, and signs of heart disease. During this week the children's fear could be alleviated and the screening process speeded up by preparing them through films and discussion on what to expect and why health screening is useful. Literature should also be made available to parents to make them aware of heart disease problems in children and at the same time explain the screening process to eliminate anxiety.

(2) The cost per previously undiscovered case of heart disease is high in comparison with all but one of the previous studies. However, these costs clearly exaggerate what could be accomplished under a well managed, on the ground screening program. A good portion of the costs included in this study fall into the overhead category that are common to such demonstration projects.

A rough comparison was made between physician mass screening, with the resulting estimate that computer-technician screening costs approximately 30-50% of that of physician screening.⁵

⁴ No information was gathered in this study on false-negative rates of computer screening. But previous studies indicate PCS screening is reliable in minimizing missed detection of children with heart disease (See Table 1). The very high positive rates in the study probably indicates over caution on the part of the technicians which implies a trade off of more false positives but less false negatives.

⁵ The 30 to 50% cost comparison is based on a \$50 per hour cost per physician hour and technician time necessary to screen a comparable number of children plus amortized computer cost. The actual study comparison was \$1.31 per child screened by a physician to 65¢ per child screened by computer.

Of course this is a substantial savings but it fails to accentuate the point that physician time necessary for mass screening is an extremely scarce resource probably unavailable in most communities.

(3) If mass heart sound screening is to be effective, it appears its best chance of success is in one of the following settings: (a) public health, (b) in combination with other screening activities.

Many of the previous studies indicate mass screening would be most effective in areas with physician shortages. Public health agencies in low income urban and rural areas could integrate computer screening for children into their ongoing programs quite reasonably. These areas theoretically should yield the highest incidences of *new* cases, and the recent study tends to substantiate this. (See Table 1).

The other option would be to continue mass heart sound screening in schools, but to work up a combination of screening tests, such as vision and hearing, which could be integrated into a health week or some other health designated educational process. The combination of screening programs could be arranged to allow minimum disruption and smooth flow while spreading administrative overhead expenses. The more complete package of health education and multiple tests would increase the attractiveness of the program and improve its chances of success.

BIBLIOGRAPHY OF STUDIES

"Joint Council/Community Program—Task Force Recommendations for Medical Education and Community Program Priorities," American Heart Association, September 30, 1972.

"Auscultation of the Heart by Machine and by Physicians," Ieri, A, Taranta, A, Spagnuolo, M, and Greenberg, M: *JAMA*, Nov. 20, 1967, Vol. 202, No. 8.

"Benefits from Mass Evaluation of School Children for Heart Disease (Experience with 6,625 Children)," Cayler, GG, and Warren, MC: *Chest*, Vol. 58, p. 349-351, October, 1970.

"Direction of Heart Disease in Children," Reynolds, JL: *Journal of the Louisiana State Medical Society*, February, 1971, Vol. 123, No. 2.

"Heart Disease Screening of Preschool Children," Reynolds, JL: *American J Dis Child*, Vol. 119, June, 1970.

"Heart-Sound Screening in Children," Durnin, RE, Stanton, RE, Gallaher, ME, Golding, RE, Gathman, G, and Fyler, DC: *JAMA*, March 25, 1968, Vol. 203, No. 13.

"New Electronic Device Zips through Mass Heart Screenings for Children with Good Reliability," Smith, ES: *California's Health*, March, 1969.

Low Renin Essential Hypertension

Patients with essential hypertension can be divided into low, normal, and high renin categories, based on the patient's peripheral plasma renin activity under various conditions. Each renin subgroup has a different clinical presentation, response to therapy, and prognosis. Thus, classification of the hypertensive patient according to renin activity can often contribute significantly to the medical management of that patient. This article will focus on the low renin subgroup of essential hypertension, a group that comprises between 20% and 30% of hypertensive patients.

Renin is an enzyme secreted by the kidney in response to any condition which decreases effective blood volume. Through a series of reactions resulting in production of angiotensin II and aldosterone, renin causes an increase in blood pressure and plasma volume, which in turn tend to restore the lowered effective blood volume toward normal.

Patients are considered to have low renin hypertension when their plasma renin activity fails to increase normally in response to maneuvers that lower effective blood volume such as sodium restriction, an upright position, or diuretic administration, or when the renin activity is low compared to daily sodium excretion. At Vanderbilt, low renin patients are identified through use of a Lasix® (furosamide, Hoechst Pharmaceuticals, Inc.) stimulation test. All antihypertensive medications are discontinued for two weeks. Lasix® (40 mg) is administered orally at 6 p.m., 12 mn. and 6 a.m. The patient then stands upright for three hours and a peripheral plasma renin activity is obtained. If this activity is less than 1.5 ng/ml/hr, the patient is considered to have low renin hypertension. Patients with renal disease, coronary artery disease, or cerebrovascular insufficiency should be monitored carefully during the Lasix® test. In the Vanderbilt experience, Lasix® stimulation done in this way has proved the most reliable test for predicting response to therapy in a given patient.

Once the low renin hypertensive patient has been identified, several known causes of sup-

pressed renin activity must be excluded before a diagnosis of low renin essential hypertension can be made. Excessive mineralocorticoid secretion causes low renin hypertension through the mechanism of sodium retention and expanded vascular volume. Thus, conditions such as primary aldosteronism, Cushing's syndrome, adrenal tumor, and congenital adrenal hyperplasia may lead to low renin hypertension. These diseases can be ruled out by appropriate steroid measurements. Similarly, licorice intoxication can suppress renin activity, because licorice extract contains ammonium glycyrrhizinate, a mineralocorticoid-like substance.

Familial pseudo-aldosteronism is another condition which causes low renin hypertension. Patients with this syndrome have a renal tubular abnormality which results in excessive sodium retention. This disorder can be recognized by a family history of the disease and a favorable clinical response to triamterene. Diabetes mellitus appears to be associated with low renin hypertension. In one series, six of seven patients with diabetic nephropathy had suppressed renin activity. Finally, any kind of renal disease that leads to inappropriate fluid retention will suppress plasma renin activity. Although these known causes of low renin hypertension will be found in only a few percent of hypertensive patients with suppressed renin activity, they are important to search for, because they often will respond to specific therapy.

Low renin essential hypertensive patients differ in several important respects from normal and high renin hypertensive patients. First, low renin patients have different epidemiological characteristics. The low renin subgroup has twice as many women as men versus equal numbers in the other hypertensive categories. The average age (46 years in one series) is older than in normal or high renin patients. There are approximately twice as many hypertensive blacks in the low renin subgroup.

Second, low renin essential hypertensives tend to have different laboratory findings. They have a lower mean urea level, higher total exchangeable sodium, and larger extracellular fluid volume than other patients. Presumably, it is the in-

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creased fluid volume which chronically suppresses renin activity and prevents the rise of renin with acute stimulation. Also, low renin patients have a lower salivary Na/K ratio. Furthermore, plasma aldosterone levels in these patients tend to be inappropriately high when compared to renin levels, a finding not present in normal and high renin hypertensive patients.

Response to antihypertensive drugs is a third way low renin patients differ from non-suppressed renin patients. Diuretic therapy alone is much more effective in the low renin subgroup than in the other renin subgroups, probably because of the expanded extracellular volume in low renin patients. In fact, the majority of these patients will respond to high dose diuretic therapy with normalization of their blood pressure.

Specifically, spironolactone 200 to 400 mg daily has been found to be particularly effective. In one series, spironolactone therapy reduced the blood pressure from an average of 161/109 to 126/92 mm Hg in 23 of 24 patients with low renin hypertension associated with an average weight loss of 3.7 kg. In 18 patients with essential hypertension and non-suppressed renin, spironolactone had no effect on blood pressure.

Thiazide diuretics is another effective therapy. In one series, hydrochlorothiazide 100 mg daily, reduced the blood pressure in 10 patients with low renin hypertension from 172/114 to 143/98. Normal renin patients showed much less response.

Diazide® (Triamterene and hydrochlorothiazide, SKF) also has been shown to be effective. In one study, 14 of 17 patients responded to Diazide®, 4 capsules daily, with an average decrease in the mean blood pressure of 17 mm Hg and an average diuresis of 1.5 kg.

On the other hand, propranolol, which suppresses renin activity and can be effective in lowering blood pressure in high and normal renin hypertension is not effective in low renin hypertension except in those cases in which plasma renin activity has been raised by diuretic therapy. Propranolol therapy in low renin patients decreased diastolic blood pressure only an average of 5 mm Hg in one study.

Thus, a variety of diuretic agents can be used effectively in the management of low renin essential hypertension. For a given patient, several drugs may be tried in order to find the most effective one with the fewest side effects and the least cost.

The prognosis of patients with low renin hyper-

tension is the fourth way in which these patients differ. The prognosis appears to be better in the low renin subgroup compared to the high and normal renin subgroups. As mentioned above, low renin patients exhibit lower blood urea levels than patients in the other subgroups, suggesting that low renin patients have less renal vascular damage. Moreover, Brunner, et al., have recorded the incidence of heart attack and stroke in the three renin subgroups over a ten year period. Whereas 11% of normal renin hypertensives and 14% of high renin hypertensives suffered one of these events, none of 59 patients with low renin hypertension had a heart attack or stroke.

These several clinical differences suggests that low renin essential hypertension may have a different underlying cause than non-suppressed renin hypertension. Although the pathogenesis of low renin essential hypertension is not known, several investigators have speculated that this condition may be due to excessive mineralocorticoid secretion by the adrenal cortex. The increased extracellular volume, total body sodium, and decreased salivary Na/K ratio are consistent with increased mineralocorticoid activity. Furthermore, it has been observed that bilateral adrenalectomy results in amelioration of hypertension in a majority of patients who have low renin essential hypertension. Also, the adrenal inhibitor aminoglutethimide has been shown to lower blood pressure of patients with low renin activity, and was ineffective in lowering the blood pressure of patients with normal renin hypertension. Moreover, the fact that spironolactone, a mineralocorticoid antagonist, can lower the blood pressure in most of these patients also supports the idea that excessive mineralocorticoid activity may cause low renin essential hypertension. Indeed, one mineralocorticoid, 18-OH DOC, has been found to be secreted in excessive amounts in a small percent of low renin patients. However, it should be emphasized that a consistent abnormality in mineralocorticoid secretion, degradation, or end organ response that would be sufficient to explain the raised blood pressure in a majority of these patients has not yet been detected.

In conclusion, measurement of the renin activity in hypertensive patients can be of practical clinical value. Knowledge that a particular patient has suppressed renin enables the physician to predict more accurately prognosis and response to therapy. Measurement of renin activity promises to be of even greater value in the future.

continued on page 214

HISTORY

The patient is a 49-year-old executive who for the past three to four years had a "heavy" sensation in the left pectoral area which is poorly related to exercise,

meals or anxiety. It lasts for one to two hours at a time, and is not relieved by rest or nitroglycerin. He is a two pack per day smoker. He has had no history of cough, and has otherwise been in excellent health. There is no family history of cardiac disease. He has been known to have a borderline elevated serum cholesterol. Physical examination disclosed a moderately obese white man who appeared somewhat older than his stated age of 49 years. No abnormalities were noted on cardiovascular examination. Chest x-ray was normal. The following electrocardiogram was obtained. (Fig. 1)

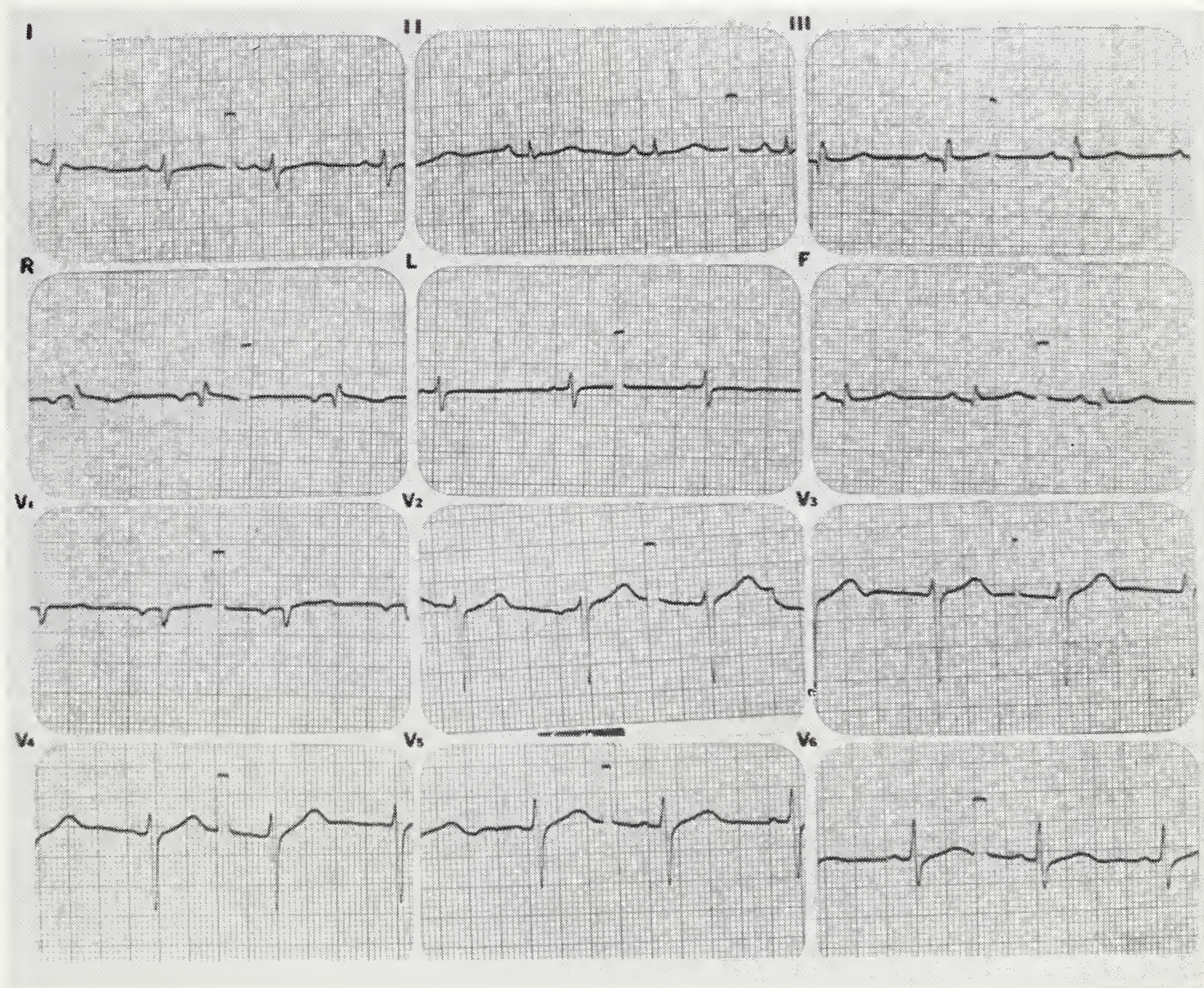


FIG. 1

DISCUSSION

The electrocardiogram shows a sinus rhythm at a regular rate of 75/minute. The PR interval is normal at 0.17 seconds. The P waves are inverted in V₁ and slightly inverted in V₂ with a normal P duration. There is somewhat poor R wave development from V₁ to V₅. The mean QRS axis is noted to be unusually rightward at 120°. The early portion of the QRS forces are

leftward causing an initial R in AVL with a .02 second Q wave in 3 and AVF. The terminal forces then rotate in a clockwise fashion to the right causing a prominent R in 3 and a very prominent S wave in I. This right axis deviation with initial leftward forces and a clockwise rotation may on occasion be seen in young asthenic people with normal hearts. However, in a 49-year-old somewhat obese individual this is a distinctly unusual axis and is felt to be representative of block of the posterior (inferior)

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radiation of the left bundle. This has been called left posterior hemiblock by Dr. Mauricio B. Rosenbaum.¹ Interruption of the broad fan like radiation representing the posterior division of the left bundle is distinctly less common than interruption of the much more discrete right bundle or less fan like anterior radiation of the left bundle. The electrocardiographic changes in posterior hemiblock are often not pronounced. Rosenbaum has described partial interruptions of the posterior radiation of the left bundle which he feels account for partial rightward rotation of the QRS forces. It should be recognized, however, that lesions which increase right ventricular pressure may cause the QRS forces to rotate somewhat rightward also. Therefore, the possibility of increased right heart pressures should

always be entertained in a tracing such as the one presented. Right ventricular enlargement cannot be read in this tracing due to the lack of anterior terminal forces (causing a terminal R wave in V₁ and V₂) and due to the lack of associated ST-T wave changes. The patient from whom this tracing was obtained has previous tracings dating back four years with no notable change over this period of time.

Final diagnosis: Right axis deviations suggesting left posterior hemiblock.

HARRY L. PAGE, JR., M.D.
W. BARTON CAMPBELL, M.D.
Co-Directors

REFERENCE

1. Rosenbaum, MB, Elizari, MV, Lazzari, JO: The Hemiblocks, *Tampa Tracings*, 1970.

* * *

Jejunioleal Bypass . . .

continued from page 207

2. Payne, JH and DeWind, LT: Surgical treatment of obesity. *Am J Surg*, 118:141, 1969.

3. Scott, HW, Jr, Law, DH, IV, Sandstead, HH, Lanier, VC, Jr and Younger, RK: Jejunioleal shunt in surgical treatment of morbid obesity. *Ann Surg*, 171: 770, 1970.

* * *

Hypertension Reviews

continued from page 212

It is hoped that study of the renin system in hypertensive patients will lead to better understanding of the basic causes of hypertension and thus possibly to its prevention and cure.

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REFERENCES

1. Christlun, AR: Diabetes and hypertensive vascular disease. *Amer J of Cardiol*, 32:592-606, 1973.
2. Crane, MG, Harris, JJ, and Johns, VJ: Hyporeninemic hypertension. *Amer J of Med*, 52:457-466, 1972.
3. Brunner, HR, Sealey, JE, and Laragh, JH: Renin as a risk factor in essential hypertension: more evidence. *Amer J of Med*, 55:295-302, 1973.
4. Buhler, FR, Laragh, JH, Sealey, JE, and Brunner, HR: Plasma aldosterone-renin interrelationships in various forms of essential hypertension. *Amer J of Cardiol*, 32:554-561, 1973.
5. Jose, A, Crout, JR, and Kaplan, NM: Suppressed plasma renin activity in essential hypertension. Roles of plasma volume, blood pressure and sympathetic nervous system. *Ann Intern Med*, 72:9-16, 1970.

4. Scott, HW Jr, Sandstead, HH, Brill, AB, Burko, H and Younger, RK: Experience with a new technic of intestinal bypass in the treatment of morbid obesity. *Ann Surg*, 174:560, 1971.

5. Scott, HW, Jr, Dean, R, Shull, HJ, Abram, HS, Webb, W, Younger, RK and Brill, AB: New considerations in use of jejunioleal bypass in patients with morbid obesity. *Ann Surg*, 177:723, 1973.

* * *

6. Carey, RM, Douglas, JG, Schweikert, JR, and Liddle, GW: The syndrome of essential hypertension and suppressed plasma renin activity. *Arch Intern Med*, 130:849-854, 1972.

7. Douglas, JG, Hollifield, JW, and Liddle, GW: Comparison of spironolactone and a thiazide-triamterene combination in the treatment of low-renin essential hypertension. *JAMA*, (to be published).

8. Adlin, EV, Marks, AP, and Channick, BJ: Spiro-nolactone and hydrochlorothiazide in essential hypertension. *Arch Intern Med*, 130:855-858, 1972.

9. Buhler, FR, Laragh, JH, Baer, L, Vaughan, ED, and Brunner, HR: Propranolol inhibition of renin secretion—a specific approach to diagnosis and treatment of renin-dependent hypertensive diseases. *New Eng J of Med*, 287:1209-1214, 1972.

10. Gunnells, JC, McGuffin, WL, Robinson, RR, Grim, CE, Wells, S, Silver, D, and Glenn, JF: Hypertension, adrenal abnormalities, and alterations in plasma renin activity. *Ann of Intern Med*, 73:901-911, 1970.

11. Melby, JC, Dale, SL, Grakin, RJ, Gaunt, R, and Wilson, TE: 18-Hydroxy-11-deoxycorticosterone (18-OH-DOC) secretion in experimental and human hypertension. *Recent Progr Hormone Res*, 28:287-351, 1972.

Please examine Figures 1 and 2 and circle the correct radiographic abnormality.

- (a) Multiple fractures
- (b) Bone destruction
- (c) Periosteal reaction
- (d) Osteoporosis

Answers to be found on page 216



FIG. 1



FIG. 2

* * *

Outpatient Clinical Center Study of Recurrent Aphthous Stomatitis

The cooperation of physicians and dentists is requested in the referral of patients for a therapeutic study of aphthous stomatitis being conducted by the National Institute of Dental Research at the Clinical Center, National Institutes of Health, Bethesda, Maryland.

Needed are patients with the typical and recurrent oral ulcerative lesions of aphthous stomatitis (i.e. not herpes, or 'fever blisters'). Studies will include physical examination, blood tests, and weekly short visits to the Clinical Center.

Accepted patients will be given one of three therapeutic regimens in a double-blind outpatient trial, and will be asked to keep a diary of their oral ulcers. Upon completion of their studies (approximately 24 weeks) patients will be returned completely to the care of the referring physician.

Dentists or physicians interested in having their patients considered for admission to this outpatient study may write:

N. A. Cummings, M.D.
National Institute of Dental Research
Clinical Center, Room 2B-19, N.I.H.
Bethesda, Maryland 20014

Discussion:

Periosteal reaction is a non specific radiographic finding that may be associated with a wide variety of diseases and may be either localized or generalized. The causes of localized periosteal reaction include trauma, tumors and osteomyelitis. Fibrous dysplasia, Caffey's disease, metastatic disease and normal variations in infants may cause either localized or generalized periosteal reaction. The list associated with the production of generalized periosteal reaction is extensive: leukemia, sickle cell disease, collagen vascular disorders, scurvy, healing rickets, Gaucher's disease, hypervitaminosis A, hyperphosphatasia, and last but probably most commonly hypertrophic osteoarthropathy. This latter syndrome includes periosteal reaction, digital clubbing, and synovitis of the joints. It may be produced by many neoplastic and inflammatory lesions such as carcinoma of the abdominal organs, regional enteritis and many others. Perhaps the most common form is hypertrophic pulmonary osteoarthropathy, which is produced by either a neoplasm or inflammatory lesion of the lung. The reason for the production of this syndrome by this variety of lesions is unknown. Humeral, vascular and neural etiologies have been theorized.^{1,2,3} The patient presented in this communication had an osteogenic sarcoma removed and later developed metastases to his lung. As a result of the lung lesion, he developed hypertrophic pulmonary osteoarthropathy. (Fig. 3)

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Answer to X-Ray of the Month:

(c) Periosteal reaction. Note that there is laminated elevation of the periosteum along the medial humerus extending almost the entire length of the bone. It is

REFERENCES

1. Edeiken, J, Hodes, PJ, Caplan, LH: New Bone Production and Periosteal Reaction. *Am J Roentgen*, 97:708-718, 1966.
2. Greenfield, GB, Schorsch, Shkolnik, A: The Various Roentgen Appearances of Pulmonary Hypertrophic Osteoarthropathy. *Am J Roentgen*, 101:927-931, 1967.
3. Greenfield, GB: *Radiology of Bone Diseases*. JB Lippincott Co, Philadelphia, 1969.



FIG. 3 Tomogram of right lung. Note large lesion with irregular opacity within it. This opacity represents bone formation in the metastatic osteogenic lesion. This lesion produced the pulmonary hypertrophic osteoarthropathy.

* * *

also present along both the medial and lateral sides of the radii and ulnae. It is particularly distinguishable along the medial ulna of the left arm as it is separated from the cortex by a thin radiolucent line.



Carcinoembryonic Antigen (1)

Detection of the presence of a tumor-associated antigen in the plasma of patients with carcinoma of the colon, first discovered and described about ten years ago, was a significant advancement in the extensive amount of work being done in hopes of discovering a laboratory "test for cancer." The antigen was termed carcinoembryonic antigen, or CEA, because of its relationship, in adults, with malignancy and its presence normally in endodermal tissues during embryonic development. This antigen, which may in fact more likely represent a number of antigenic substances, is glycoprotein in nature, and can be identified in the glycocalyx of normal human intestine and in the feces of "normal" human volunteers. Its presence in measurable quantities in the plasma of patients with colon carcinoma may involve an "unmasking" of the fetal antigens, a derepression of host-cell genes normally turned off in the adult, or simply the access of the antigen to the patient's blood stream by the existence of a neoplasm capable of invading the vascular stroma of the colon. Extensive investigation of CEA has revealed that it is found not exclusively in colon cancer, but has been associated with many neoplasms, both endodermal and non-endodermal in origin, such as carcinoma of the pancreas, lung, breast, ovary, bladder, and prostate, soft tissue sarcomas, the lymphoma-leukemia group, and other diverse neoplasms. Moreover, elevated plasma levels have been found in non-neoplastic diseases such as inflammatory bowel disorders, pancreatitis, and alcoholic cirrhosis, in pregnancy, in apparently healthy smokers, and in patients with benign neoplasms such as colonic polyps.

Until recently this burgeoning mass of information was somewhat academic, because the test was not readily available for clinical use. Research efforts continued, and a few institutions, using their own facilities to obtain all the reagents necessary for the CEA assay system, were able

to perform the test and gain familiarity with it. Commercial production and distribution of the test materials had been delayed, however, by the Bureau of Biologics of the Food and Drug Administration, pending its investigation and evaluation of a particular such test system. Recently this system has been approved, and a license granted to Hoffmann-La Roche, Inc., for the manufacture and distribution of a test "kit" for CEA assay, and marketing will begin in the very near future.

The implications of this accomplishment are of considerable magnitude to clinicians, pathologists, and certainly to patients. Predictions are that this test will be requested and performed in prodigious numbers, despite all efforts of those already knowledgeable in this field to encourage an attitude of cautious conservatism in the minds of medical practitioners, with restriction of the use of this test to certain relatively well-defined clinical situations. Obviously such indications might well change and expand as further information is gained from large scale testing programs, but such investigations are best performed under controlled conditions at institutions geared for this kind of study. The concern we should all be aware of is that by improper use and interpretation of the test misleading information may be forthcoming regarding the diagnostic and therapeutic usefulness of the technic.

Though not the only one available, the commonest test method for CEA is radioimmunoassay, specifically (as used by Roche) the Hansen technique. ¹²⁵I-labelled CEA competes with any CEA in the test plasma for specific CEA antibody; purified standards are used to construct a curve off which the level in the test plasma can be determined. A "negative" test value is less than 2.5 nanograms (billionths of a gram) per ml; values between 2.5-5 ng/ml are in the "gray zone," and values above 5 ng/ml are considered significantly elevated. Some aspects of clinical interpretation will be presented in this column next month.

DEAN G. TAYLOR, M.D.

From the Department of Pathology, Methodist Hospital, Memphis, Tenn.



from the tennessee department of mental health

Children and Youth Programs

In June of 1971, the Tennessee Department of Mental Health, through its five state psychiatric hospitals and contract agreements with 22 community mental health centers and specialized programs, was providing service to over 14,000 children and adolescents. Since that date, twelve additional programs have been added to the emerging network of care and an estimated 20,000 children and adolescents are currently receiving services through these programs of the Department and its affiliates.

A major objective of the Department's activities has been to develop a statewide network of mental health services, not only for its children but also for its adults, elderly, and specialty treatment groups. Among the major characteristics of this network of care are the firm commitment to provide in the local community as many of the service elements required by the population needs as possible; and to insure, through deliberate regional and statewide planning, responses to those specialized needs of children and adolescents which cannot be met within their community. This has implicit economic benefits and increases the effectiveness of services and also provides preventive and indirect responses that limit future problems of children and adolescents.

The focal point within each community for the delivery of services is the 30 community mental health centers throughout Tennessee. These centers, through working arrangements with community facilities, programs and professionals, are able to provide services to the majority of the children needing mental health intervention.

Characteristic of what we anticipate for many communities in the future is the program of the Northeast Memphis Mental Health Center. This program, with a children and youth staff, equivalent to seven full-time professionals, provides mental health services of over 500 referrals a year. Over 30 separate agencies and community services referred clients during one six-month period, reflecting the wide community visibility and utilization of the center.

Services offered by the children and youth section of the center include complete evaluation

and diagnostic services, parent training, individual and group counseling and therapy for both children and their families, consultation with public school personnel, an inpatient unit for children, behavior management programs for individual children and training in these techniques for families, and ongoing follow-up services for all children and youth served by the center. A 24-hour emergency service is provided, as well as preventive mental health activities for the total community.

For those children for whom the mental health center is unable to provide service, the Department of Mental Health, through its state psychiatric hospitals, regional outpatient programs, and specialized service agreements, provides a valuable backup resource. One such regional residential facility is the Riverbend program in Knoxville. This program is responsible for residential services to all patients under the age of 18 referred to Eastern State Psychiatric Hospital. In addition to their school program, the center has a complete diagnostic and evaluation unit, a day program for preschool children, treatment groups for children and adolescents, child management training programs for parents, consultation services for public schools, and an intensive treatment group for severely regressed children and adolescents.

In the Middle Tennessee Region, Cumberland House—a nationally recognized residential program for emotionally disturbed children—and a number of other specialized treatment programs for children provide not only needed direct services but also serve as demonstration projects and continuing training resources for other regions of the state. The Regional Intervention Program (RIP) and the Child Intervention Program (CIP) are two such region-wide activities.

RIP is an outpatient support service program for preschool children of Central State Psychiatric Hospital. The primary target population is children under six who are manifesting moderate to severe behavioral development problems. The unique aspect of this program is the complete involvement of parents. There is a small resource staff of professionals who train and give

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Financial Assistance for the Hemophiliac

In the ancient books, the Talmud, it was noted that ritual circumcisions were occasionally complicated by an unusual disease causing excessive bleeding in some infants. The disease these Hebraic writers referred to was hemophilia, a hereditary hemorrhagic diathesis characterized by deep tissue bleeding and a deficient generation of coagulant factors.

For centuries, the complexity of this crippling disease remained a mystery to medicine and treatment was often futile. But today, although there is still no cure for it, hemophilia can be effectively treated and controlled. Unfortunately, the treatment is usually a very expensive continuous hardship for the hemophilia victim.

Tennessee has an estimated 300-400 hemophiliacs. The severity of the disease varies with each individual, but, for many victims of hemophilia, medical expenses of up to \$10,000 a year are common. Bleeding episodes not properly treated can result in numerous complications, some of which leave the victim crippled, thus further impairing his chance of maintaining a job adequate for meeting medical expenses.

The Tennessee Department of Public Health has initiated a program to ease the plight of hemophiliacs in the state. Under the Bureau of Medical Care Services, the Hemophilia Program has been formed to "assist persons who require continuing treatment with blood and blood derivatives to avoid crippling (disorders), expensive hospitalization, and other effects associated with this bleeding condition, but who are unable to pay the entire cost of such services. . . ."¹

The scope of the Program and many of its specific provisions were outlined in House Bill No. 222 passed last April by the state legislature, which appropriated \$300,000 for the Program's initial year of operation. This will not cover all medical expenses of indigent hemophiliacs, but it has provided a base from which the Department of Public Health can begin an assistance program.

Upon passage of the bill, Commissioner Eugene W. Fowinkle, M.D., appointed a Hemophilia Advisory Committee consisting of one

representative from each of several particularly interested fields which included medical schools, voluntary agencies, blood banks, hospitals, medical specialists (hematology), local health departments and the general public.

Faced with the responsibility of insuring that limited, but welcomed, funds be most beneficially used to assist the state's 300-400 hemophiliacs, the advisory committee developed a concise strategy based on a flexible system of priorities. Many of the priorities sharply define the requirements for financial eligibility, but they extend well beyond a question of who can qualify for funds, and attack the overriding problem of reducing the hemophiliac's unavoidable medical expenses.

Reducing Costs Through Home Therapy

The primary objective of the Hemophilia Program, as established by the advisory committee, is reducing in-patient hospital costs (which can range from \$500-\$1000 per bleeding episode) by instituting home care on both prophylactic and therapeutic regimens.

Current literature contains many reports which attest the value of self-administered home therapy on a PRN basis as compared with clinic or hospital treatment.² Such treatment plans, according to the studies, result in a significant decrease in the cost of total treatment, a decrease in days lost from school or work, a decrease in the amount of hospitalization required, and, exceptionally important to the Program goals, a decrease in crippling and other related morbidity. Hematologists have successfully taught children as young as ten years of age to transfuse cryoprecipitate into their own veins at the first symptom of a bleeding episode.

To implement this primary objective of home therapy, the advisory committee recommended that the dispersal of funds emphasize providing qualified hemophiliacs the cost of blood derivatives, supplies such as needles and syringes, and the cost of a special low-temperature home freezer for preservation of the cryoprecipitate. In cases where home treatment is not practical, the Program will attempt to meet the expense of

treatment in a doctor's office, clinic, or hospital emergency room.

Other priorities established by the advisory committee are directed toward easing the overall problem of hemophilia in this state and include (1) assistance in blood banking operations—particularly in the area of inventory control, (2) the encouragement of quality control and increased production of blood derivatives, (3) continuing education of professionals in the field of hematology, and (4) assistance in the development or expansion of hemophilia centers and programs.

A pressing need of the Program is to identify all hematologists in the state. Prior to obtaining program benefits, an applicant must submit a plan of treatment outlined by a hematologist. The hematologist must also submit a laboratory report showing the results of a direct one-stage assay of Factor VIII or Factor IX. Presently, there are no hematologists identified outside the medical school centers.

Hemophiliacs who need assistance meeting the

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From Department of Mental Health

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daily input to the staff of mothers. The program consists of three components: behavior management training, individual tutoring, and classroom activities. There is also a strong consultation and training relationship with other agencies.

The Child Intervention Program is also an outpatient support service program of Central State serving 26 counties. The target group is elementary age children who are experiencing severe behavior and language problems. CIP services include systematic applied behavior analysis, academic and behavioral intervention programs, consultation and training to parents and agencies. Like RIP, it has strong parent based operational orientation with emphasis on training parents to formulate and implement behavior change strategies with their own children, and in turn, train other parents.

The Department of Mental Health, while realizing that its primary responsibility rests in service delivery, has not forgotten its obligation in the areas of research, evaluation, training and demonstration. Programs such as RIP and CIP are complemented by other activities. Through grants from the Office of Youth Development of the Department of Health, Education and Welfare, the Department of Mental Health has been

expense of their treatment should apply to:

Hemophilia Program
Chronic Disease and Rehabilitation Services
Tennessee Department of Public Health
105 Capitol Towers
510 Gay Street
Nashville, Tennessee 37219

If the patient is under 21 years of age, application should be made to the local health department in his county of residence.

REFERENCES

1. House Bill 222 (Substituted for Senate Bill 115). Chapter 82, Public Acts of 1973, Tennessee General Assembly.
2. Supervised Patient-Management of Hemophilia. *Annals of Internal Medicine*, 78:195-201. 1973.
3. The Prophylactic Approach to Hemophilia. *Hospital Practice*, Feb. 1971: 99-109.
4. Delivery of Care to Hemophilic Children: Home Care Versus Hospitalization. *Pediatrics*, Vol. 51, No. 6, June, 1973.
5. Hemophilia. *Am J Nursing*, Vol. 72, No. 11:2011-2020.
6. Ays, JV, and Lilly-McKenzie, LC: "Hemophilia Home Administration—A Report on Two Years Experience." *Journal TMA*, Volume 66, Number 12.

actively engaged in the development and replication of neighborhood child advocacy programs.

By arrangement with the Metropolitan Nashville Public Schools and under contract with a number of federal education programs, the Department provides research, evaluation and training services to the Prevention Intervention Program, a program designed to provide resource and consultative support to teachers in five Tennessee school systems. In cooperation with the Tennessee Department of Education and the Nashville schools, the Department of Mental Health is initiating a teacher training program designed to assist in the implementation of Tennessee's education of the handicapped program.

With its emphasis on providing quality services to children and youth and its recognition of its obligations to support activities in training, research and evaluation, we in the Department of Mental Health feel that the future of child mental health services in Tennessee provides us with great opportunity. The extent to which we are able to respond and accept the challenge of the future is limited only by our ability to organize, implement and administer dynamic programs oriented toward the needs of individual children and adolescents in Tennessee.

LEON JOYNER

**from the
executive
director**

J. E. BALLENTINE

MEDICAL DIGEST

NEWS OF INTEREST TO DOCTORS IN TENNESSEE

STRONG APPEALS AND PROTESTS MADE TO HEW . . . The Tennessee Medical Association has submitted in hard-hitting language, an appeal and protest to the Secretary of HEW on the assignment of area designations for PSRO's in Tennessee . . . These were set forth in regulations printed in the Federal Register of December 20, 1973 . . . As a result, TMA and Foundation officers sought and obtained an audience with high level health officials in HEW at Washington to change the PSRO area designations in Tennessee . . . This was arranged and the outcome of this face-to-face conference resulted in the likelihood of revised designated areas for Tennessee . . . There is a good chance that by the time you read this item, the area designations for Tennessee will be amended wherein there will only be two PSRO's in the State--one for Shelby County, and the other for the remainder of the State of Tennessee as per the original proposal submitted last April by the TMA and the Foundation for Medical Care.

* * * * *

OTHER PROTESTS . . . On January 24, as the result of publication in the January 16 Federal Register, TMA submitted an appeal to the Tennessee Energy Allocation Officer to formulate working mechanisms through which fuel allocations will be made to those physicians who will require fuel to maintain their present levels of activity in the event of gasoline rationing . . . Likewise, the Administrator of the Federal Energy Office in Washington was petitioned that a critical situation and need exists to make special provisions for an adequate supply of motor fuel to meet the needs of Medicine. The contingency regulations published in the Federal Register does not single out physicians or health care institutions for any priority allocation of fuel. A strong request was submitted that allocation of sufficient fuel be made to physicians and the health industry . . . The January 9 Federal Register contained proposed regulations on hospital pre-admission certification for Medicare. A vigorous TMA protest was made stating that the pre-admission requirements are unnecessary, especially where a good program of utilization review is in effect. It was pointed out in TMA's protest that the PSRO law authorizes but does not mandate pre-admission certification. It would likewise deny the local review organization the flexibility and freedom it has been promised in development of effective review mechanisms . . . The Board of Trustees of AMA has notified the HEW Secretary that unless these stringent requirements are removed, "AMA will see him in court."

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HIGHLIGHTS OF JANUARY TMA BOARD MEETING

39 ITEMS OF BUSINESS ACTED UPON BY THE BOARD . . . The Trustees held the first quarter meeting in Nashville on January 12-13 . . . Principal actions taken were: Appointment of the 1974 Nominating Committee--nominated physicians for terms on the Board of TMA Student Education Fund --Determined those physicians to receive the Distinguished Service Award in 1974--appointed physicians to serve on Standing and Special Committees of TMA in 1974-75--heard a report from the Chairman of the Board's Finance Committee pertaining to TMA's employees' compensation plan, and delegated the Committee to further study fringe benefits for employees--considered a report on the status of the Physician's Assistants bill in the General Assembly--approved of the TMA Committee on Blood Banks and Medical Laboratories to work toward eliminating the purchase of blood, and to promote a voluntary replacement plan--considered and acted on a report from the Insurance Committee Chairman and out-of-state expert witnesses testifying in malpractice cases--reappointed the attorney and the auditor for TMA in 1974--upheld a previous action concerning clinical pharmacy programs where graduates were serving in a program that is considered as the practice of medicine, and again disapproved of the Pharm-D program--urged insurance coverage for private psychiatrists under Medicaid--opposed formation of a state Department of Human Services--approved a request from the Emergency Medical Services Committee to endorse an application for a \$400,000 grant for a communication system for emergency services for the Tennessee Department of Emergency Medical Services--considered suggestions for resolutions to be submitted to TMA's House of Delegates--studied staff travel expenses in view of rising costs of travel and fuel--acted on a recommendation from AMA concerning the Medical-Legal investigation of deaths, and sent the matter to the State Medical Examiner with the request to advise how TMA could approach this issue, and requested recommendations as to how TMA can support the improvement of investigations of deaths in Tennessee --approved fourth quarter TMA Financial Statement--designated Board members to attend AMA National Leadership Conference in Chicago, January 25-27--approved TMA legal counsel to assist and advise the medical staff of the Blount County Hospital pertaining to requirements of JCAH upon medical staff members--approved two programs, one from Tennessee Pharmaceutical Association and another from the Tennessee Heart Association, for a public education program on hypertension--endorsed the efforts of the Executive Director and the Director of Continuing Medical Education for a site visit, and certification wherein the Annual Meeting of TMA could become accredited for postgraduate education--heard a report on the subject of communications between physicians and the public.

* * * * *

ANNUAL MEETING NEXT MONTH . . . Gatlinburg, April 10-13, will be one of TMA's best. Plan to attend . . . THE ANNUAL MEETING PROGRAM IS PUBLISHED IN A SPECIAL COLORED SECTION IN THIS ISSUE OF THE JOURNAL--DON'T MISS IT . . . Note the important speakers on topics that affect every physician . . . And the many scientific and special events with outstanding speakers both on the general program and the medical specialty societies . . . Note, too, the changed format for the social events, the President's cocktail dinner, plus the dance to follow . . . This has to be one of the best, outstanding and important meetings of the Association.

**public
service**



COMMUNICATIONS • LEGISLATION

HADLEY WILLIAMS, ASSISTANT EXECUTIVE DIRECTOR

PSRO SERVICES AVAILABLE FROM TFMC . . . The Tennessee Foundation for Medical Care (TFMC) is now fully operational and actively representing Tennessee physicians in helping to establish appropriate mechanized utilization review programs. The medical staffs of every Tennessee hospital have been notified of the availability of the Foundation to assist them with utilization review activities. The Foundation can provide computer facilities and a professional staff to assist any hospital in developing a mechanized data system. Adoption of the Foundation system will avoid any duplicate or redundant effort and uneconomical expenditures by a hospital in order to comply with PSRO and/or JCAH requirements.

After carefully reviewing operational health data systems in the country, the Foundation found that some of the systems have been designed to require more information than necessary, i.e., PAS/MAP; some of them are too simple to meet the minimum requirement, i.e., Blue Cross sponsored TUP. Furthermore, none of them are flexible enough to adapt to each individual hospital's needs or even be compatible with each other. Therefore, the Foundation has developed a mechanized data system that is both flexible and compatible to the needs of the hospital.

Since the Foundation is a non-profit organization, it only requests that each participating hospital reimburse the Foundation for actual cost involved. Being a physician sponsored organization, the Foundation will provide appropriate assistance to benefit professional groups and hospitals.

For those hospitals that have developed their own norms and standards, the Foundation's system will provide the following services:

1. Design an abstract to collect essential information that will meet the needs of the UR committee.
2. Screen each case against norms and standards through the computer and report only exception cases to the UR committee for review.
3. Provide a series of periodical reports desired by the UR committee for research, education, updating norms and standards and any other purposes.

For those hospitals that have not yet developed their own norms and standards, the Foundation's system will provide the following services:

1. Design an abstract to collect essential information that will produce the necessary data for developing norms and standards.
2. Collect and analyze the data at appropriate times in order to assist the UR committee in developing their own norms and standards.
3. Screen each case against the norms and standards to obtain information pertaining to the exceptions.

4. Analyze the result of item (3) and provide analysis to the UR committee for studying the appropriateness of the newly developed norms and standards.
5. Screen each case against the norms and standards through the computer and report only exception cases to the UR committee for review.
6. Provide a series of periodical reports desired by the UR committee for research, education, updating norms and standards, and other purposes.

One of the Foundation's major objectives is to develop a productive, cooperative relationship between professional groups and hospitals. The PSRO legislation offers physicians the first opportunity of establishing and operating review organizations, excluding all others. Support of the Tennessee Foundation for Medical Care will benefit every physician member and the control of medical review data will remain under the jurisdiction of physicians.

* * * * *

INFANT MORTALITY HITS RECORD LOW . . . The U.S. infant mortality rate in 1972 was the lowest ever recorded in this country, 18.2 per 1,000 live births, according to a recent article in American Medical News.

While the new low figure is encouraging, the article reminds once again that infant mortality is not the best, nor even a very good indicator of the efficacy of a nation's health delivery system. The rate has been dropping steadily for years, and is continuing to drop. In July, 1973, the latest month for which figures are available, it stood at 16.7

"For the most part, infant mortality rates reflect social, not medical, problems. Poverty, malnutrition, poor housing, low education levels, and racial or ethnic differences can be correlated with infant death rates."

"Nevertheless, there it is: An infant mortality rate chart line that resembles a downhill run on a ski slope. Something good is happening."

As recently as 1950, the U.S. infant mortality rate was a discouraging 29.2 per 1,000 live births. In most years since then, it has gone steadily downward. The article is based on statistics from the National Center for Health Statistics, a division of the U.S. Public Health Service.

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INCORRECT ROUTING OF UNIFORM INSURANCE CLAIM FORM . . The Health Insurance Council advises that claims submitted on the newly developed Uniform Health Insurance Claim Form are sometimes erroneously routed to the office of the Council. This has occurred due to the fact that the Council's name and address is on the back of some printers' versions of the Uniform COMB-1 form despite instructions to the contrary on the form. The Health Insurance Council is not an insurance company nor does it administer benefit payments. The Council is an insurance organization similar to medical, dental and hospital societies and associations. Benefit payments are unnecessarily delayed when forms are sent to the Council either by the providers of service or by patients.

* * * * *

MONEY TALKS . . . Out of \$8,449,000 contributed to all Congressional candidates during the 1972 elections, \$3,633,000 or 40% came from Labor Union committees, according to Common Cause.



ARE YOU ALL SET?

139th Annual Meeting

April 10-13, 1974

Gatlinburg

Special Section

SCIENTIFIC PROGRAM OF THE 139TH ANNUAL MEETING OF THE TENNESSEE MEDICAL ASSOCIATION

General Information

The official program contains detailed information on the 1974 annual meeting of the Tennessee Medical Association, conducted in Gatlinburg, Tennessee, April 10-11-12-13, 1974.

♦ Registration

The registration desk will be located in the Gatlinburg Auditorium in the lobby between the exhibit hall and the main auditorium. All members, visiting speakers, interns, residents, exhibitors, and guests are urged to register. Admission to all meetings and sessions, and to the exhibits is by a badge secured at the registration desk. THERE IS NO REGISTRATION FEE.

Programs for all activities during the Annual Meeting are available at the registration desk. Those eligible to register are: Members of the Tennessee Medical Association; physicians from other states who are members of their respective state medical associations; residents, interns, medical students and guests.

♦ Registration Hours

(All times are Eastern Daylight Time)

Wednesday, April 10, 10:00 A.M.

(Special registration for members of the House of Delegates from 10:00 A.M. to 5:00 P.M.)
(Advance registration for exhibitors and early arrivals after 4:00 P.M.)

Thursday, April 118:00 A.M. to 5:00 P.M.

Friday, April 128:00 A.M. to 5:00 P.M.

Saturday, April 138:00 A.M. to 2:00 P.M.

♦ Annual Meeting Headquarters

Headquarters are located in the Auditorium in Gatlinburg, where many activities are scheduled. The specialty societies will conduct their meetings concurrently with TMA in Gatlinburg. These and other activities will be conducted in the Auditorium; the Riverside Motor Lodge; River Terrace Motel; Holiday Inn; the Royal Townhouse Motor Inn; and the Mountain View Hotel. The locations where specialty societies are meeting outside of the Auditorium are listed in this program under the "Days" that the various societies are scheduled to meet. The Woman's Auxiliary activities will be conducted entirely in the Mountain View Hotel.

♦ TMA Headquarters Offices

The TMA headquarters offices will be located during the meeting at the rear of the Auditorium. The rooms where the offices are located will be adequately identified by signs.

A member of the staff will be available to assist you at all times. Members of the House of Delegates, Officers, and Reference Committee Chairmen can secure secretarial help when needed. Your headquarters office staff is available to assist you in your needs.

J. E. BALLENTINE, *Executive Director*

L. HADLEY WILLIAMS, *Assistant Executive Director*

DONALD H. ALEXANDER, *Executive Assistant and Field Representative*

WILLIAM V. WALLACE, *Executive Assistant*

JOHN R. COLES, *Executive Assistant, Legislation*

JAMES D. INGRAM, *Director, Continuing Medical Education*

MISS LINDA BASS, *Administrative Secretary*

MRS. CAROLYN SANDLIN, *Records and Bookkeeping*

MISS MARY HITTINGER, *Secretary*

MRS. JUDY POE, *Secretary*

MISS JUDY SMITH, *Secretary*

♦ President's Reception and Cocktail Buffet Dinner

The President's Reception will present a new innovation beginning at 6:30 P.M. on Friday evening, April 12, at the Riverside Motor Lodge. The Reception will be in conjunction with the presentation of awards and the installation of the incoming President. Every member and his family attending the Annual Meeting is invited to this affair.

Following the Reception, and the short formal program, there will be an enjoyable cocktail buffet dinner (by ticket). A dance will be sponsored following dinner for your late evening entertainment. The dinner and dance will be the social highlight of the meeting.

♦ Communications—

Emergency Telephones

Gatlinburg 436-5181 and 436-5182
(Area Code 615)

A blackboard will be placed in a conspicuous location in the Auditorium where doctors' calls will be listed. PLEASE CHECK OFTEN WITH THE LISTINGS ON THE CALL BOARD. The emergency telephones will be in the lobby near the registration desk.

♦ Specialty Society Luncheon Tickets

Tickets to specialty society banquets and luncheons, as well as the Woman's Auxiliary affairs, can be obtained from Specialty Societies respective registration desks. PURCHASE YOUR

TICKETS AT THE TIME OF REGISTRATION. The number that can be accommodated is limited.

◆ *House of Delegates*

The first session of the House of Delegates will be held on Wednesday afternoon, April 10, beginning at 4:00 P.M. in the Gatlinburg Auditorium. The second session will be held on Saturday, April 13, beginning at 9:00 A.M. in the Auditorium. Reference Committees will meet on Thursday, April 11, and the locations of the Reference Committee rooms are listed below. *Any TMA member may appear before a Reference Committee to testify on the business before the House of Delegates.*

◆ *Reference Committee Meeting Rooms—House of Delegates*

Reference Committee on Constitution and By-Laws	Auditorium—City Council Room
Reference Committee (A)	Auditorium—Mezzanine Lecture Hall
Reference Committee (B)	Auditorium—Legion Room
Reference Committee (C)	River Terrace Motel—Gold Room
Reference Committee (D)	River Terrace Motel—Blue Room

(The Reference Committee on Outstanding Physician of the Year will meet in the TMA offices on Wednesday.)

Reference Committees will conduct their hearings beginning at 9:00 A.M. on Thursday, April 11.

◆ *General Meetings—TMA*

The general scientific presentations at the 139th TMA annual meeting will be presented on Friday morning, April 12. (See complete program under the "Days" as listed herein.) The specialty societies meeting concurrently with the Tennessee Medical Association will conduct their scientific and business programs on April 11-12 and 13. Please note the program listing the scientific meetings of all specialty societies each day. Every member registered is welcome to attend any scientific meeting of the specialty societies. Of special interest will be the presentations of importance and general interest by guest speakers on Thursday, Friday and Saturday, April 11-13. Please note topics and outstanding speakers listed in this program.

◆ *Specialty Societies*

Sixteen specialty societies will be conducting their meetings concurrently with the Tennessee Medical Association in Gatlinburg. Scientific and business sessions of the specialty societies will be held on April 11-12-13. SEE DETAILS IN THIS PROGRAM LISTED UNDER EACH OF THE

ABOVE DATES AND UNDER "ANNOUNCEMENTS."

◆ *Woman's Auxiliary*

The Woman's Auxiliary to TMA will conduct all sessions of its annual meeting at the Mountain View Hotel, Gatlinburg. The registration desk of the Auxiliary will be located in the lobby of the Mountain View Hotel, and all committee meetings, board meetings and general sessions will be conducted in the designated rooms at the Mountain View Hotel.

◆ *Exhibit Attendance Prize*

To encourage greater physician participation in the exhibits, the exhibit committee continues a feature for 1974. TMA will be giving away to a lucky physician, a RCA Portable Color Television, as an Exhibit Attendance Prize. To qualify, each registered physician is required to visit a minimum of thirty technical exhibitors. The drawing will be held Saturday (April 13) afternoon at 1:00 P.M. in the exhibit area. Instructions for participating will be given each physician at the time of registration.

◆ *Scientific Exhibits*

Physicians desiring to present scientific exhibits will locate these in the exhibit area of the Gatlinburg Auditorium.

TECHNICAL EXHIBITORS

The technical exhibitors will be located in the exhibit hall of the Auditorium. They may be visited each day of the Annual Meeting beginning on Thursday, April 11, from 9:00 A.M. until 5:00 P.M.—and continued from 9:00 A.M. until 5:00 P.M. on Friday, April 12. The exhibits will be open from 9:00 A.M. until 1:00 P.M. on Saturday, April 13.

The exhibitors are an important part of the 139th Annual Meeting, and each physician is urged to spend a part of his time visiting and inspecting the products and services of the exhibitors. The exhibits will display many educational features of medical supply and the latest developments in scientific undertaking. Also, many exhibitors will be presenting their services that are essential to the practice of the physician.

Representatives of the companies listed will be on hand in the exhibit hall of the Auditorium each day, to discuss the displays which will be on exhibit. This will give each registrant an opportunity to discuss products and services displayed with the trained personnel of the exhibit company in a relaxed atmosphere and to have a leisurely visit with the local detail man who can normally be seen only between patients.

Visit Exhibitors—Through their rental of exhibit space, the commercial firms have greatly assisted in financing the 1974 annual meeting. Every

physician should show his appreciation by visiting every exhibit.

All physicians will find their time well spent in visiting exhibits and keeping abreast of what is new and useful. *YOUR ATTENDANCE IS URGED*, for your benefit as well as for an expression of cooperation with our exhibitors.

VISIT THE EXHIBITS

All scientific meetings will be recessed twice for thirty minutes on each day to give doctors an opportunity to visit with the exhibitors.

WILLIAM V. WALLACE
Exhibits Manager

ABBOTT LABORATORIES North Chicago, Illinois	Booth 44
ACME VISIBLE RECORDS, INC. Nashville, Tennessee	Booth 12
AMES COMPANY DIV. MILES LABORATORIES, INC. Elkhart, Indiana	Booth 14
ARNAR-STONE LABORATORIES, INC. Mt. Prospect, Illinois	Booth 18
BLUE CROSS-BLUE SHIELD Chattanooga, Tennessee	Booth 7
BRISTOL LABORATORIES Syracuse, New York	Booth 3
COBBLY NOB Gatlinburg, Tennessee	Booth 21
COCA-COLA, INC.	Booth 34
COMPUTER SERVICENTERS, INC. Birmingham, Alabama	Booth 48
DICTAPHONE CORPORATION Rye, New York	Booth 46
DOW CHEMICAL Marietta, Georgia	Booth 39
DUNN-LEMLY-SIZER Nashville, Tennessee	Booth 51
ELI LILLY & COMPANY Indianapolis, Indiana	Booth 36
EMKO COMPANY St. Louis, Missouri	Booth 42
EQUITABLE LIFE ASSURANCE SOCIETY Nashville, Tennessee	Booth 22
FARRINGER & COMPANY Nashville, Tennessee	Booth 38
GEIGY PHARMACEUTICALS Ardsley, New York	Booth 26
GUILD OPTICIANS OF TENNESSEE Nashville, Tennessee	Booth 4
HILLCREST FOUNDATION Birmingham, Alabama	Booth 6
HOMEMAKERS (UPJOHN) Knoxville, Tennessee	Booth 40
INTERNATIONAL TRAVEL ADVISORS, INC. St. Louis, Missouri	Booth 29
INVESTMENT RETIREMENT TRUST DENBY BRANDON Memphis, Tennessee	Booth 35

IVES LABORATORIES, INCORPORATED New York, New York	Booth 19
LANIER BUSINESS PRODUCTS Atlanta, Georgia	Booth 17
MEMPHIS REGIONAL MEDICAL PROGRAM Memphis, Tennessee	Booth 43
NASHVILLE SURGICAL SUPPLY Nashville, Tennessee	Booth 33
ORTHO PHARMACEUTICAL CORP. Raritan, New Jersey	Booth 16
PARKE, DAVIS & COMPANY Detroit, Michigan	Booth 37
PFIZER LABORATORIES New York, N.Y.	Booth 13
WILLIAM P. POYTHRESS & COMPANY Richmond, Virginia	Booth 25
PROFESSIONAL SYSTEMS OF NASHVILLE (PHYSICIANS BUSINESS BUREAU) Nashville, Tennessee	Booth 41
A. H. ROBINS COMPANY Richmond, Virginia	Booth 23
ROCOM, DIV. OF HOFFMANN-LaROCHE, INC. Nutley, New Jersey	Booths 27 & 28
W. B. SAUNDERS COMPANY Philadelphia, Pennsylvania	Booth 31
SCHERING CORPORATION Bloomfield, N.J.	Booth 8
SMITH, REED, THOMPSON & ELLIS COMPANY Nashville, Tennessee	Booth 52
SOUTH CENTRAL BELL TELEPHONE CO.	Booth 24
SOUTHERN MEDICAL ASSOCIATION Birmingham, Alabama	Booth 30
STUART PHARMACEUTICAL (ICI AMERICAN INC.) Wilmington, Delaware	Booth 45
TENNESSEE FOUNDATION FOR MEDICAL CARE, INC. Nashville, Tennessee	Booth 50
UNIV. OF TENN. CONTINUING EDUCATION Memphis, Tennessee	Booth 20
UPJOHN COMPANY Chamblee, Georgia	Booth 11
U. S. AIR FORCE RECRUITING	Booth 15
WHITE SURGICAL SUPPLY COMPANY Knoxville, Tennessee	Booth 32

Announcements

SPECIAL EVENTS AND FEATURES

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PRESIDENT'S RECEPTION AND COCKTAIL BUFFET DINNER

FRIDAY, APRIL 12—8:00 P.M.

Reception—6:30 P.M.

Sponsored by TMA

MORSE KOCHTITZKY, M.D., *President*,
Presiding

Introduction of President-Elect—

E. Kent Carter, M.D.

Presenting the Distinguished Service Awards By:
J. Kelley Avery, M.D., Chairman, Board of Trustees

The President's Reception prior to the presentations is for TMA members, their wives and guests attending the Annual Meeting.

Following the introduction of the incoming President, and the presentation of special awards, members, their wives, guests and friends, are urged to attend the cocktail buffet dinner (by ticket). Following dinner, there will be dancing to the music of Jerry Collins and His Orchestra for your late evening entertainment.

★ ★ ★

Public Health Council

The meeting of the Public Health Council will be held in the meeting room at the Royal Townhouse Motor Inn on Friday, April 12. The meeting will begin at 10:00 A.M. Members of the Public Health Council will be advised of other details of the meeting.

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Please Reserve Luncheon Tickets Early

A number of the specialty societies meeting with TMA will sponsor luncheons during the Meeting.

PLEASE MAKE RESERVATIONS FOR LUNCHEONS YOU ARE PLANNING TO ATTEND. (These should be made with the secretary of the respective specialty society.)

TENNESSEE CHAPTER AMERICAN COLLEGE OF SURGEONS

Thursday, April 11, 1974

12:00 Noon

COUNCIL LUNCHEON

Steak Room

Shoney's Restaurant

★ ★ ★

COLOR TV-PRIZE

Don't forget to obtain your instructions and card to be punched by the exhibitors so that you will have a chance on the drawing for the portable color television. The drawing will be held Saturday Afternoon, April 13. Complete details can be obtained at the registration desk.

★ ★ ★

MEDICINE & RELIGION COMMITTEE BREAKFAST

Saturday, April 13

7:00 A.M.

Whaley Hall

Riverside Motor Lodge

The speaker will be Robert A. Hingson, M.D., Pittsburgh, Pennsylvania. For the last six years, he has been Professor of Public Health and Anesthesiology at the University of Pittsburgh.

★ ★ ★

Tennessee Chapter—American College of Surgeons—Banquet

The Tennessee Chapter of the American College of Surgeons will conduct their Social Hour at 6:30 P.M., followed by a banquet on Thursday evening, April 11 in the Panoram Room of the River Terrace Motel.

TMA MEMBERS AND THEIR GUESTS ARE INVITED TO ATTEND THE SOCIAL HOUR AND BANQUET. Entertainment will be by the University of Tennessee singers. Dancing will follow with music by the Jerry Collins Orchestra.

NOTICE

(First Session)

HOUSE OF DELEGATES

Wednesday, April 10

Auditorium

Gatlinburg

4:00 P.M.

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NOTICE

Scientific Presentations

The scientific presentations of all the specialty societies meeting concurrently with the Tennessee Medical Association, are open to all physicians registered at the Annual Meeting. Attend the meeting of your choice.

Technical Exhibits

The technical exhibits are located in the exhibit hall in the Auditorium. They are open daily at 9:00 A.M.

TMA Board of Trustees Meeting

The TMA Board of Trustees will meet Wednesday, April 10, at 11:00 A.M., place to be announced. The Board will also meet immediately following the adjournment of the House of Delegates on Saturday, April 13.

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Tennessee Chapter—American

Association of Public

Health Physicians

Thursday, April 11, 1974

Espalier Room

Riverside Motor Lodge

10:00 A.M.

Business Meeting

★ ★ ★

IMPACT BREAKFAST

FRIDAY, APRIL 12, 1974

7:30 A.M.

Panoram Room—River Terrace Motel

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Woman's Auxiliary to the Tennessee Medical Association

46th Annual Convention

April 10-11-12, 1974

Mountain View Hotel

Gatlinburg

The Woman's Auxiliary to the TMA will conduct all sessions of its annual meeting at the Mountain View Hotel. The registration desk of the Auxiliary will be located in the Mountain View Hotel and all committee meetings and board meetings will be conducted in designated rooms at the Mountain View.

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Arts and Crafts Exhibit and AMA-ERF Gift Shop

The Arts and Crafts Exhibit of the Woman's Auxiliary will be located in the Arrowcraft Shop off the Lobby in the Mountain View Hotel. Arts and Crafts will be accepted Wednesday morning, April 10, from 10:00 A.M. until 12:00 noon, and Wednesday afternoon from 2:00-5:00 P.M. Doctors and their families are urged to participate in the exhibit. The Gift Shop will be located with the Exhibit. Items for sale will be donated by local auxiliaries to augment Tennessee's contribution to the AMA-ERF Fund.

PROGRAM

**Wednesday, April 10,
1974**

★ ★ ★

4:00 P.M.

HOUSE OF DELEGATES

First Session

Auditorium

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WOMAN'S AUXILIARY TO THE TENNESSEE MEDICAL ASSOCIATION

Mountain View Hotel

10:00 A.M.-12:00 NOON

Meeting of Finance and Revisions Committees—
President's Suite

12:30-2:00 P.M.

Luncheon and Pre-Convention Board Meeting—
Main Dining Room

2:00-4:00 P.M.

Meeting of Awards Committee—
President's Suite

2:00-5:00 P.M.

Registration, Lobby

Hospitality Room, Lobby

Entries Accepted for Arts and Crafts

AMA-ERF Gift Shop, County Scrapbooks,
Doctors' Day Scrapbooks

PROGRAM

Thursday, April 11, 1974

SPECIALTY SOCIETIES

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TENNESSEE CHAPTER AMERICAN COLLEGE OF SURGEONS

12:00 NOON

COUNCIL

Luncheon Meeting

Steak Room

Shoney's Restaurant

GENERAL MEETING

Auditorium

(All physicians attending the TMA meeting are invited to attend the scientific sessions of the Tennessee Chapter, American College of Surgeons.)

SCIENTIFIC PROGRAM

JOHN L. SAWYERS, M.D., *President, Presiding*

1:15 P.M.

"Management of Lymphedema of the Lower Extremity"

By: W. ANDREW DALE, M.D., F.A.C.S., Nashville

1:30 P.M.

"Traumatic Rupture of the Diaphragm"

By: CALVIN MORGAN, M.D., Johnson City

1:45 P.M.

"Adult Respiratory Distress Syndrome"

By: CLARENCE S. THOMAS, JR., M.D., F.A.C.S.,
Nashville

2:00 P.M.

"Major Hepatic Resection in Children"

By: CHARLES E. MARTIN, M.D., JOHN H. FOSTER,
M.D., F.A.C.S., and GEORGE HOLCOMB, M.D.,
F.A.C.S., Nashville

2:15 P.M.

"Neoplasms Involving the Chest Wall in Childhood"

By: DAVID P. HALL, M.D., F.A.C.S., Chattanooga

2:30 P.M.

"Bilateral en bloc Cadaveric Renal Homograft Retrieval" (Movie)

By: ROBERT E. RICHIE, M.D., F.A.C.S., M. P.
KAPLAN, M.D., and H. K. JOHNSON, M.D.,
Nashville

3:00 P.M.

INTERMISSION—VISIT EXHIBITS

3:30 P.M.

"The Clinical Measurement of Gastroesophageal Reflux: Techniques and Applications"

By: DARYL FISCHER, M.D. and HARVEY BENDER,
M.D., F.A.C.S., Nashville

3:45 P.M.

"Current Trends in Duodenal Ulcer Operations"

By: J. LYNWOOD HERRINGTON, JR., M.D.,
F.A.C.S., Nashville

4:00 P.M.

GUEST LECTURE

C. ROLLINS HANLON, M.D., F.A.C.S.
Director, American College of Surgeons,
Chicago, Illinois

4:45 P.M.

BUSINESS MEETING

5:00 P.M.

Adjourn

7:00 P.M.

SOCIAL HOUR AND BANQUET

Panoram Room River Terrace Motel
Entertainment: University of Tennessee Singers,
followed by dancing to the music of the Jerry
Collins orchestra.

TMA members and their guests are invited to attend the Social Hour and Banquet. Make reservations early. Tickets available at registration desk.

MARCH, 1974

**TENNESSEE STATE
ORTHOPAEDIC SOCIETY**

AND

TENNESSEE PEDIATRIC SOCIETY

THURSDAY, APRIL 11, 1974

Whaley Hall

Riverside Motor Lodge

INTRODUCTION

EUGENE M. REGEN, SR., M.D., Nashville

9:10-9:20 A.M.

"The Orthopaedic Problems Confronting the Pediatrician"

By: SIDNEY S. WHITAKER, JR., M.D., Bristol

9:20-9:40 A.M.

"Bone and Joint Infections"

By: PAUL P. GRIFFIN, M.D., Nashville

9:40-9:50 A.M.

DISCUSSION

9:50-10:50 A.M.

PANEL DISCUSSION

"Hip Joint Problems in the Child"

Moderator: ALVIN J. INGRAM, M.D., Memphis

PANELISTS: (To be announced)

10:50-11:10 A.M.

**COFFEE BREAK AND
EXHIBIT PERUSAL**

11:10 A.M.-12:10 P.M.

PANEL DISCUSSION

"Foot Problems in the Child"

Moderator: PAUL P. GRIFFIN, M.D., Nashville

Panelists: ROBERT C. CODDINGTON, M.D.
Chattanooga

S. BENJAMIN FOWLER, M.D.
Nashville

ALVIN J. INGRAM, M.D.
Memphis

12:10-1:15 P.M.

LUNCH

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**TENNESSEE STATE
ORTHOPAEDIC SOCIETY**

1:15-1:45 P.M.

"The Role of Intraarticular Drug Treatment in Rheumatoid Arthritis"

By: ARTHUR L. BROOKS, M.D., Nashville

1:45-2:00 P.M.

DISCUSSION

2:00-3:00 P.M.

HAND PANEL

"Restoration of Structure and Function"

Moderator: LEE W. MILFORD, JR., M.D.
Memphis

Panelists: FRANK E. JONES, III, M.D.
Nashville

ELVIS J. JUSTIS, JR., M.D.
Memphis

GEORGE M. STEVENS, III, M.D.
Oak Ridge

3:00-3:15 P.M.

COFFEE BREAK

3:15-4:00 P.M.

"Acupuncture—Yes or No?"

Moderator: PAUL S. CRANE, M.D.
Nashville

Panelists: EUGENE M. REGEN, JR., M.D.
Nashville
HARRY ABRAM, M.D.
Nashville

4:00-4:10 P.M.

DISCUSSION

4:10-4:30 P.M.

"Knee Arthroplasty"

By: S. BENJAMIN FOWLER, M.D., Nashville

4:30-4:40 P.M.

DISCUSSION

6:30 P.M.

HOSPITALITY HOUR

Pearl Dining Room Riverside Motor Lodge

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TENNESSEE ACADEMY OF OPHTHALMOLOGY

THURSDAY, APRIL 11, 1974

12:00 NOON

LUNCHEON

Room A

Holiday Inn

12:50 P.M.

SCIENTIFIC PROGRAM

Room B

Holiday Inn

Meeting Called To Order

By: ALLEN G. LAWRENCE, JR., M.D., *President*

1:00 P.M.

"Adenocystic Carcinoma of the Lids"

By: M. KENT MOORE, M.D. and DENIS O'DAY,
M.D., Nashville

1:10 P.M.

"Sensory Adaptations in Esotropia"

By: JAMES WILSON, JR., M.D., Memphis

1:25 P.M.

GUEST SPEAKER

"Diagnosis and Management of Orbital Lesions"—
Part I

By: STEPHEN L. TROKEL, M.D., New York

2:30 P.M.

INTERMISSION—VISIT EXHIBITS

2:45 P.M.

"A Simplified Cross-Reference Filing System"

By: JAMES T. ALEXANDER, M.D., Chattanooga

3:00 P.M.

"Metastatic Neuroblastoma to the Orbit"

By: LEE R. MINTON, M.D., Nashville

3:15 P.M.

"Complications of Cataract Surgery"

By: WILLIAM M. SAMS, M.D. and ROGER HIATT,
M.D., Memphis

3:30 P.M.

"Ophthalmoscopic Findings in Premature and
Full-term Infants"

By: RICHARD T. COPPOLITTI, M.D., M. KENT
MOORE, M.D. and JAMES H. ELLIOTT, M.D.,
Nashville

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TENNESSEE DISTRICT BRANCH— AMERICAN PSYCHIATRIC ASSOCIATION

THURSDAY, APRIL 11, 1974

Huff House, Upper Level Mountain View Hotel

SCIENTIFIC PROGRAM

9:00 A.M.

"The Current Status of Crisis Intervention"

By: JOHN P. SPIEGEL, M.D., President-Elect,
American Psychiatric Association

9:45 A.M.

"The Current Status of Group Therapy"

By: JACOB CHRIST, M.D., Clinical Associate Pro-
fessor of Psychiatry, Emory University, At-
lanta, Georgia

10:30 A.M.

"The Current Status of Family Therapy"

By: ALFRED A. MESSER, M.D., Professor of
Psychiatry, Emory University, Atlanta,
Georgia

11:15-11:30 A.M.

INTERMISSION—VISIT EXHIBITS

11:30 A.M.

PANEL DISCUSSION

"The Contributions of Crisis, Group and Family Therapies to the Practice of Individual Psychotherapy"

12:30 P.M.

LUNCHEON

Dogwood Room Mountain View Hotel

GUEST SPEAKER

"Problems Confronting the APA & American Psychiatry"

By: JOHN P. SPIEGEL, M.D.

2:00 P.M.

BUSINESS MEETING

6:30 P.M.

SOCIAL HOUR, BANQUET AND ENTERTAINMENT

Dogwood Room Mountain View Hotel

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TENNESSEE CHAPTER— AMERICAN ASSOCIATION OF PUBLIC HEALTH PHYSICIANS

THURSDAY, APRIL 11, 1974

Espalier Room Riverside Motor Lodge

PROGRAM

10:00 A.M.

BUSINESS MEETING

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WOMAN'S AUXILIARY TO THE TENNESSEE MEDICAL ASSOCIATION

THURSDAY, APRIL 11, 1974

Mountain View Hotel

PROGRAM

8:00 A.M.-4:30 P.M.

Registration—Lobby; Hospitality—Lobby; Arts and Crafts—Pine Room; AMA-ERF Gift Shop—Arrowcraft Shop

8:00-9:00 A.M.

INTERFAITH BREAKFAST

Mrs. Charles Prater—Presiding
Dogwood Room

9:00 A.M.-12:00 NOON

GENERAL SESSION

Laurel Room

12:15-2:00 P.M.

Luncheon Honoring National Guests,
Past Presidents, Health Project Winners,
Presentation of Gavels
Dogwood Room

2:00-4:30 P.M.

GENERAL SESSION

Installation of Officers
Laurel Room

8:00-10:00 P.M.

Open House—Honoring New Auxiliaries
President's Suite
(All Auxilians and Husbands Invited)

PROGRAM

Friday, April 12, 1974

IMPACT BREAKFAST

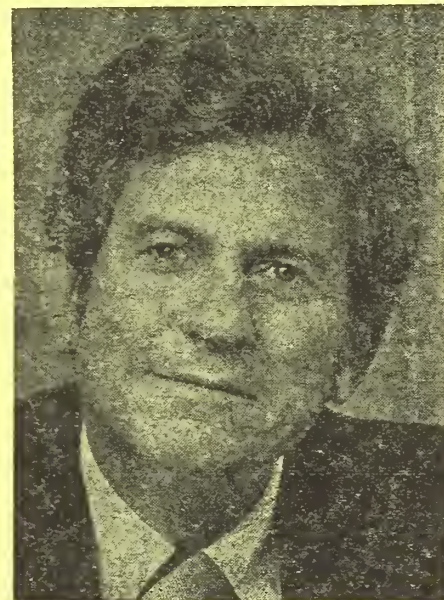
Panoram Room

River Terrace Motel

7:30 A.M.

Program

IMPACT Guest Speaker



NAT T. WINSTON, M.D.

Highlighting this year's IMPACT (Independent Medicine's Political Action Committee—Tennessee) Breakfast as guest speaker will be Dr. Nat T. Winston. Truly a man with many talents, he can be described as a successful businessman, tireless political worker, plain-talking psychiatrist, innovative administrator and self-taught musician.

A psychiatrist and former Tennessee Commissioner of Mental Health, he presently is vice-president of Hospital Affiliates, Inc., a publicly-owned corporation that owns or manages 48 hospitals throughout the nation.

With his approach to "people politics" he spear-headed Bill Brock's race against Albert Gore in 1970, and later in 1972 he shared his campaign talents on behalf of President Nixon, Senator Howard Baker, and with Robin Beard in his upset victory of a ten-year incumbent congressman.

A native East-Tennessean, he taught himself to play the banjo and today holds the distinction of being one of the few non-professional musicians to have a "Gold Record," achieved by selling over one million copies. He has used this musical prowess in fund raising campaigns while serving as state chairman of the Cancer Crusade and Christmas Seals Honorary Chairman for the Tennessee Lung Association in 1973.

TMA General Program

Auditorium

Presiding: O. M. McCALLUM, M.D. Henderson
Chairman, Program Committee
Tennessee Medical Association.

9:00 A.M.

"The Immuno Poietec Apparatus and the Various Levels of Immunologic Reaction"

By: PHILLIP LIEBERMAN, M.D.
Chief, Section of Allergy and Immunology
University of Tennessee College of Medicine
Memphis

"Things Gone Haywire"

By: JOHN S. JOHNSON, M.D.
Head, Division of Rheumatology
Scripps Clinic and Research Foundation
La Jolla, California

"The Body's Watchdog—Tumor Surveillance"

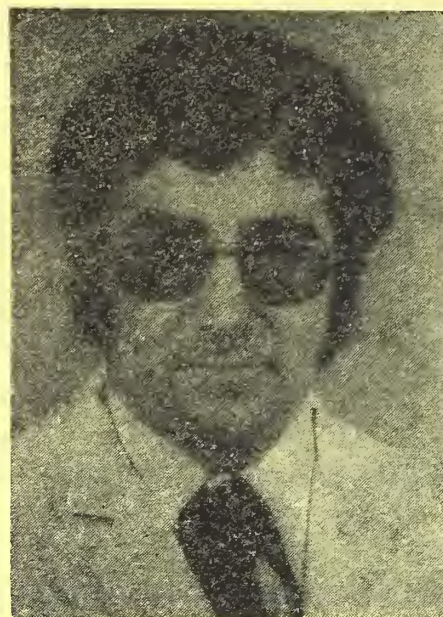
By: JOHN L. ZIEGLER, M.D.
Chief, Hematology and Supportive Care Branch
Medical Oncology Area
National Cancer Institute
Bethesda, Maryland

"PSRO Up-Date"

By: ROBERT B. HUNTER, M.D.
Sedro Woolley, Washington
Member, Board of Trustees,
American Medical Association

Visit Exhibits

TMA Guest Speaker



PHILLIP LIEBERMAN, M.D.
Chief, Section of Allergy
and Immunology
University of Tennessee
College of Medicine,
Memphis

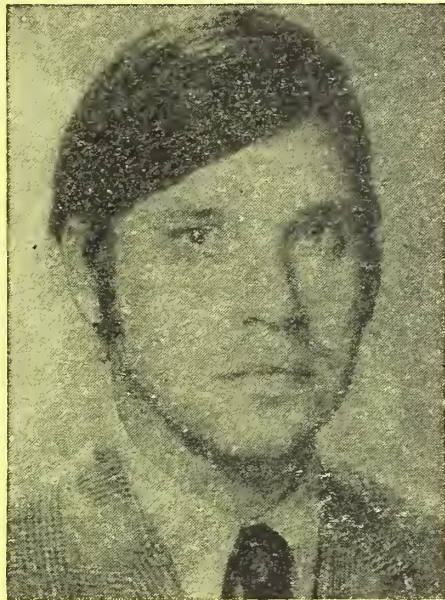
SUBJECT: "The Immuno Poietec Apparatus and the Various Levels of Immunologic Reaction"

Dr. Lieberman is a prominent educator-author in the field of allergy-immunology. His writings are found in leading medical journals and his research abstracts have been presented at national medical-specialty association meetings.

An undergraduate of Tulane University, he received his M.D. degree in 1965 from the University of Tennessee College of Medicine where he now holds the position of Assistant Professor and Chief, Section of Allergy and Immunology. A native Tennessean, he completed his internship and residency training at the City of Memphis hospitals after which he received a Fellowship in Allergy and Immunology at Northwestern University.

He is an active member in the American Federation for Clinical Research, a Fellow in the American College of Allergy, and a Diplomate of the American Board of Internal Medicine.

—TMA Guest Speaker—



JOHN S. JOHNSON, M.D.
Scripps Clinic and
Research Foundation
La Jolla, California

SUBJECT: "Things Gone Haywire"

An outstanding authority in Rheumatology, Dr. Johnson began his medical career at Vanderbilt University School of Medicine where he graduated with the M.D. degree in 1961. He was an A.R.A. Postdoctoral Fellow in Medicine at the University of Rochester, and later became Senior Investigator, Immunology Section, National Institute of Health in Bethesda, Maryland. He is a Diplomat of the American Board of Internal Medicine, a researcher in immunochemistry, and currently serves as Head, Division of Rheumatology, Scripps Clinic and Research Foundation, LaJolla, California.

—TMA Guest Speaker—



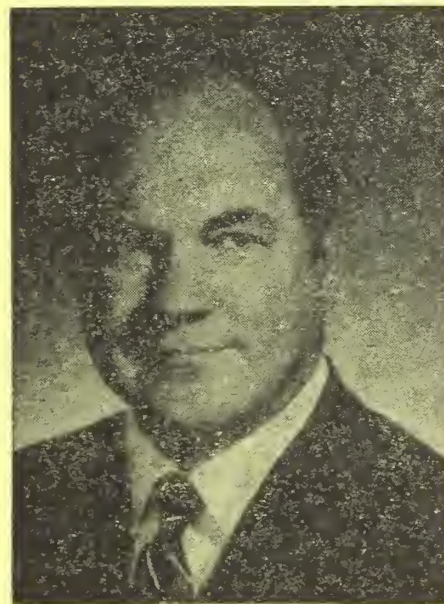
JOHN L. ZIEGLER, M.D.
National Cancer Institute
Bethesda, Maryland

SUBJECT: "The Body's Watchdog—Tumor Surveillance"

A noted international leader in cancer research and treatment, Dr. Ziegler is currently serving as Chief, Hematology and Supportive Care Branch, Medical Oncology Area, at the National Cancer Institute. He previously served as Director of Lymphoma Treatment Center at Makerere University Medical School and Director of Uganda Cancer Institute. A senior surgeon in the United States Public Health Service (active), Dr. Ziegler was the recipient of the U.S.P.H.S. Commendation Medal in 1969, and in 1972 received the Albert Lasker Award for his outstanding contribution in tumor treatment by chemotherapy.

A native New Yorker, he received an undergraduate degree from Amherst College and the M.D. degree from Cornell University Medical College.

—TMA Guest Speaker—



ROBERT B. HUNTER, M.D.
American Medical
Association
Board of Trustees

SUBJECT: "PSRO Up-Date"

Robert B. Hunter, M.D., Sedro Woolley, Washington, was elected to the American Medical Association's Board of Trustees in 1971. He became a member of the AMA Board after serving as a Delegate to AMA from the Washington State Medical Association. In 1973, he was appointed to the National Advisory Council on PSRO, which was created to advise the Department of HEW on the implementation of Professional Standards Review Organizations.

Dr. Hunter is in general practice and also does general surgery. He is a former president of his county medical society, the Washington State Medical Association, and a faculty member of the University of Washington School of Medicine. A native of California, he earned an undergraduate degree from the University of Washington, and the M.D. degree from the University of Pennsylvania Medical School in 1943.

The President's Reception and COCKTAIL BUFFET DINNER

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FRIDAY, APRIL 12, 1974

Pearl Dining Room
And
Whaley Hall

Riverside Motor Lodge

President's Reception6:30 P.M.
Installation of the Incoming President7:15 P.M.
Cocktail Buffet Dinner (By ticket)8:00 P.M.
Dancing9:15 P.M.

To the Music of Jerry Collins
And His Orchestra

★ ★ ★

Events Include

- ★ Installation of the Incoming President
- ★ Presenting the Distinguished Service Award
- ★ Music and Dancing

★ ★ ★

Obtain Tickets at Registration
Desk in the Auditorium

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SPECIALTY SOCIETIES

TENNESSEE STATE
ORTHOPAEDIC SOCIETY
AND

TENNESSEE NEUROSURGICAL SOCIETY

FRIDAY, APRIL 12, 1974

Legion Room

Auditorium

1:00-2:00 P.M.

PANEL DISCUSSION

"Fracture Dislocations of the Dorsolumbar Spine
with Residual Neurologic Function"

Moderator: ARTHUR L. BROOKS, M.D., Nashville

Panelists: LEWIS D. ANDERSON, M.D.
Memphis

DONALD L. GAINES, M.D.

Nashville

CHARLES W. EMERSON, JR., M.D.

Nashville

RAY W. HESTER, M.D.

Nashville

2:00-4:00 P.M.

PANEL DISCUSSION

"Unsolved Low Back Pain Problems"

Moderator: EUGENE M. REGEN, JR., M.D.

Nashville

Panelists: JORGE A. PICAZA, M.D.

Memphis

CULLY A. COBB, JR., M.D.

Nashville

FRED P. SAGE, M.D.

Memphis

4:00 P.M.

BUSINESS MEETING

(Tennessee Neurosurgical Society Only)

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TENNESSEE STATE OBSTETRICAL AND GYNECOLOGICAL SOCIETY

FRIDAY, APRIL 12, 1974

Panoram Room

River Terrace Motel

12:00 NOON

COCKTAILS AND LUNCHEON

1:00 P.M.

SCIENTIFIC PROGRAM

"Anesthesia For Cesarean Section"

By: JOHN I. FISHBURNE, M.D., Associate Professor
of Obstetrics and Gynecology and Associate
Professor of Anesthesiology, University of
North Carolina School of Medicine, Chapel
Hill

"Out Patient Diagnosis and Management of Intra-
Epithelial Cervical Neoplasia"

By: G. WILLIAM BATES, M.D., Assistant Profes-
sor, University of Tennessee Memorial Re-
search Center and Hospital, Knoxville

"Continuous Caudal Anesthesia in Obstetrical
Patients at Erlanger Hospital"

By: JAMES SHERRELL, M.D., Resident, Baroness
Erlanger Hospital, Chattanooga

"Fetal Monitoring in High Risk Obstetrics"

By: FRANK H. BOEHM, Assistant Professor, Ob-
stetrics and Gynecology, Vanderbilt Univer-
sity School of Medicine, Nashville

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**TENNESSEE STATE ACADEMY OF
OTOLARYNGOLOGY**

FRIDAY, APRIL 12, 1974

Blue Room

River Terrace Motel

1:00 P.M.

BUSINESS MEETING

★ ★ ★

**TENNESSEE ACADEMY OF
OPHTHALMOLOGY**

FRIDAY, APRIL 12, 1974

Room B

Holiday Inn

10:30 A.M.

BUSINESS MEETING

12:30 P.M.

LUNCHEON

Room A

Holiday Inn

1:15 P.M.

SCIENTIFIC PROGRAM

Room B

Holiday Inn

Meeting Called To Order

By: DALE TEAGUE, M.D., Vice-President

1:20 P.M.

GUEST SPEAKER

**"Diagnosis and Management of Orbital Lesions"—
Part II**

By: STEPHEN L. TROKEL, M.D., New York

2:15 P.M.

INTERMISSION—VISIT EXHIBITS

2:30 P.M.

"Argon Photocoagulation in Diabetic Retinopathy"

By: BUTLER FULLER, M.D., Memphis

2:45 P.M.

"Clinical Aspects of Ocular Nematode Infection"

By: RONALD S. GABLE, M.D., M. KENT MOORE,
M.D. and JAMES H. ELLIOTT, M.D., Nash-
ville

3:30 P.M.

"Lagophthalmos: A New Management"

By: HOWARD L. BEALE, M.D., Memphis

3:15 P.M.

"A Case of Fungal Endophthalmitis"

By: HAROLD AKIN, M.D. and DAVID H. TURNER,
M.D., Chattanooga

3:30 P.M.

"Ocular Phthisis"

By: JOHN F. ALTENBURG, M.D., ROBERT C. DEAN,
M.D. and DENNIS O'DAY, M.D., Nashville

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**TENNESSEE SOCIETY OF
PLASTIC AND
RECONSTRUCTIVE SURGEONS**

FRIDAY, APRIL 12, 1974

Lounge

Riverside Motor Lodge

12:15 P.M.

**LUNCHEON AND
BUSINESS MEETING**

Mural Room

Riverside Motor Lodge

1:30 P.M.

SCIENTIFIC PROGRAM

"Repair of Traumatic CSF Fistulae"

By: WILLIAM BOBO, M.D., University of Tennes-
see Medical Units, Memphis

**"Soft Tissue Reconstruction in Head and Neck
Cancer"**

By: STAN SANDERS, M.D., Vanderbilt Hospital,
Nashville

**"Bilateral Hip Disarticulation—A Treatment for
Severe Decubitus Ulcer Disease in Paraplegics"**

By: KENNETH BROWN, M.D., Baroness Erlanger
Hospital, Chattanooga

"Malignant Melanoma in the Preadolescent"

By: JAY CROWE, M.D., University of Tennessee
Medical Units, Memphis

"Wound Coverage in Burn Patients"

By: B. O. PIHL, M.D., Vanderbilt University
Hospital, Nashville

"Cutaneous Blastomycosis Simulating Epithelioma"

By: FRANK SCHLICHTER, M.D., Baroness Erlanger
Hospital, Chattanooga

DISCUSSION

2:30 P.M.

"Moh's Chemosurgery"

By: REX AMONETTE, M.D., Memphis

3:15 P.M.

PROBLEM CASE PANEL

(Bring your slides and x-rays for a
free-for-all consultation session)

★ ★ ★

TENNESSEE THORACIC SOCIETY
In Conjunction With the
TENNESSEE CHAPTER, AMERICAN
COLLEGE OF PHYSICIANS
And
TENNESSEE SOCIETY OF
INTERNAL MEDICINE

FRIDAY, APRIL 12, 1974

Mezzanine Lecture Hall

Auditorium

1:00 P.M.

"Atypical Myobacterial Disease"

And

"Isoniazid-Associated Hepatitis"

By: VERNON N. HOUK, M.D., Deputy Chief,
Tuberculosis Branch Center for Disease Control,
Atlanta, Georgia

2:00 P.M.

*"Coal Miner's Lung Disease: Current Concepts"

By: LEROY N. LAPP, M.D., Chief, Medical Research Branch,
Appalachian Laboratory for Occupational Respiratory Diseases,
West Virginia University Medical Center, Morgantown,
West Virginia

3:00 P.M.

INTERMISSION—VISIT EXHIBITS

3:15 P.M.

"The Role of Coagulation Abnormalities in Thromboembolic Disorders"

By: BRUCE AVERY, M.D., Associate Professor of Medicine,
University of Tennessee Memorial Research Hospital, Knoxville

3:35 P.M.

"The Radiographic Diagnosis of Pulmonary Embolism"

By: Vernon Vix, M.D., Professor of Radiology,
Vanderbilt University Medical Center, Nashville

3:55 P.M.

"The Management of Pulmonary Embolism"

By: JAMES SNELL, M.D., Associate Professor of Medicine,
Chief, Department of Pulmonary Disease, Vanderbilt University Medical Center,
Nashville

4:15 P.M.

BUSINESS MEETING
TENNESSEE THORACIC SOCIETY

BUSINESS MEETING
TENNESSEE SOCIETY OF
INTERNAL MEDICINE

*Dr. Lapp's paper graciously sponsored by THE
TENNESSEE LUNG ASSOCIATION

★ ★ ★

WOMAN'S AUXILIARY TO THE
TENNESSEE MEDICAL
ASSOCIATION

FRIDAY, APRIL 12, 1974

7:30 A.M.

IMPACT BREAKFAST

9:30-10:30 A.M.

Mountain View Hotel

COMBINED BOARD MEETING

PROGRAM

Saturday, April 13, 1974

MEDICINE AND RELIGION BREAKFAST

Whaley Hall

Riverside Motor Lodge

7:00 A.M.

Presiding: IRA L. ARNOLD, M.D., *Chairman*, Committee on Medicine and Religion

SPEAKER



ROBERT A. HINGSON, M.D.

Dr. Robert A. Hingson has served as Professor at six different medical schools. He was Founder Professor in Anesthesiology at the University of Tennessee Medical Units from 1945-1948. For the last six years, he has been Professor of Public Health and Anesthesiology at the University of Pittsburgh.

He is a past president and director of Brother's Brother Foundation which has carried its services into 68 different nations on every continent. This organization has provided nine million immunizations against eight epidemic diseases.

He invented and developed clinical use of the hypospray dermojet which has made mass immunizations a reality.

He is a native Alabamian and holds the M.D. degree from Emory University, H.H.D. from Monrovia College, Liberia, LL.D., William Jewell College, and Litt.D., Hardin-Simmons University.

He is a Baptist, Kiwanian, and Rotarian, and holds membership in more than a dozen professional and fraternal organizations.

Wives Invited

9:00 A.M.

HOUSE OF DELEGATES

Second Session

Auditorium

Gatlinburg

SPECIALTY SOCIETIES

★ ★ ★

TENNESSEE STATE SOCIETY OF
ANESTHESIOLOGISTS

SATURDAY, APRIL 13, 1974

Mezzanine Lecture Hall

Auditorium

SCIENTIFIC PROGRAM

9:00 A.M.

"A Victim Looks At Acupuncture"

By: C. B. PITTINGER, M.D., Nashville

"A Neurosurgeon Looks At Acupuncture"

By: WARREN BOOP, M.D.

"A Skeptic Looks At Acupuncture"

By: C. W. QUIMBY, M.D., Nashville

MARCH, 1974

12:15 P.M.

LUNCHEON AND
BUSINESS MEETING

Mural Room

Riverside Motor Lodge

★ ★ ★

TENNESSEE SOCIETY OF
PATHOLOGISTS

SATURDAY, APRIL 13, 1974

BUSINESS MEETING

Blue Room

River Terrace Motel

12:00 NOON

LUNCHEON

Blue Room

River Terrace Motel

SCIENTIFIC PROGRAM

Blue Room

River Terrace Motel

Program to Be Announced

★ ★ ★

TENNESSEE RADIOLOGICAL
SOCIETY

SATURDAY, APRIL 13, 1974

Gold Room

River Terrace Motel

12:15 P.M.

LUNCHEON

1:15 P.M.

SCIENTIFIC PROGRAM

"Roentgenographic Manifestations of the Acute Renal Carbuncle—Radiological Diagnosis to a Medical Dilemma"

By: JACK G. RABINOWITZ, M.D., Professor-Director Department of Radiology, State University of New York, Downstate Medical Center, Brooklyn, New York

BUSINESS MEETING

The Inn at Cobbly Nob

Gatlinburg, Tennessee

(Get yourself an Inn with the Smokies)



A place to vacation

A place to dine

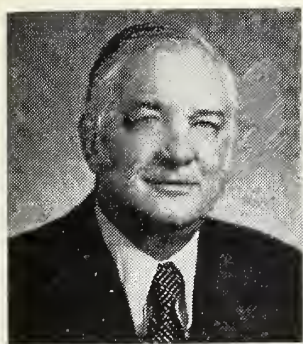
A place to invest

Stop at Booth #21

Tennessee Medical Association Convention

Gatlinburg, Tennessee

April 11, 12, 13



MORSE KOHTITZKY

president's page

This month the Tennessee Medical Association's JOURNAL previews the 139th Annual Meeting at Gatlinburg, April 10-13, 1974. The scientific program is completed, and fifteen medical specialty societies are meeting in conjunction with the State Association. The reports of last year's activities are being compiled, resolutions from the Delegates, county and specialty societies, and committees of the Association are being developed and submitted.

In previous years approximately 700 or more physicians have registered and participated in our Annual Meeting activities. With the exhibitors, the Woman's Auxiliary and guests, our meeting will approximate 1,000 in attendance. I hope that number will be significantly increased this year. At no time in the past have as many issues been before us; has Medicine been criticized as severely; have there been as many governmental, consumer, media, hospital or insurance groups, and especially some commentators as outspoken about what they feel are our shortcomings and omissions.

Our Annual Meeting is the one most important event of TMA's year. It brings members together where they make rules, elect officers, obtain scientific credits, hear important speakers on timely subjects, attend their specialty conference, and get better acquainted with their fellow physicians and friends.

There will be some changes in the format of the Annual Meeting this year, particularly in the social activities. Instead of a formal banquet, our format will make for a more fun time and access to our friends through the President's Reception, and a delightfully planned cocktail buffet dinner.

The time is now at hand for Medicine to take a decisive stand for what is best for medical and health care. We need our physician members' views on strengthening our Association, and especially a better understanding among us on such issues as National Health Insurance, peer review (PSRO's), quality assurance, continuing education, and many other items. Will we sit back and complain about "organized medicine," the Tennessee Medical Association or the American Medical Association, or will we strive to weld a common front of excellent physicians improving our individual and collective capabilities for delivery of the best medical care?

We invite you to take part in these decisions. The scientific speakers, general and specialty, are well known nationally. Exhibits will be superior.

Get your facts and take part in the decisions that will be presented. It's your option. The Annual Meeting will be well worth your attending.

Sincerely,

PRESIDENT

journal

OF THE
TENNESSEE MEDICAL ASSOCIATION

PUBLISHED MONTHLY

DEVOTED TO THE INTERESTS OF THE MEDICAL
PROFESSION OF TENNESSEE

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JOHN B. THOMISON, M.D., EDITOR

ADDISON B. SCOVILLE, JR., M.D., ASSOCIATE EDITOR

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MARCH, 1974

editorials

On Medical Education

Earlier this month your Editor attended the 70th Annual Congress on Medical Education presented by the Council on Medical Education of the American Medical Association in collaboration with the Association for Hospital Medical Education, the Association of Schools of Allied Health Professionals, the Federation of State Medical Boards of the United States, the Intern and Residents Business Session of the AMA, and the Student American Medical Association.

A lot of words were spoken about undergraduate, graduate, and continuing medical education, as well as about such things as PSRO's, peer review, and the like, but one of the best and

most enlightening sessions was a presentation and panel discussion entitled "Education for Medicine: What's Right? What's Wrong?" with the subtitle "What I Got and What I Needed for Where I Am." The first thing that impressed me about the group was the poise and articulateness of the younger members of the group, which consisted of a second and a third year medical student, a surgical resident, and an internist just out of his residency. Equally articulate were a family practitioner who is also a member of the AMA Council on Medical Education and a practicing internist who is Clinical Professor of Medicine at Cornell University Medical School. But even more impressive was the perception of the young members of the panel. Although they all, to some extent, fell into the trap of taking a longer overview than they were capable of doing at the particular stage of their development, they obviously had given the matter a great deal of thought and showed a good insight into what medicine and the education process is all about.

First, though recognizing that all one can really learn in school is how to learn, to a man they deplored the shortening of the education and training experience, at a time when knowledge and necessity for skills is burgeoning. They felt that a good doctor needs a very broad background in humanities as well as in science, and that the premedical student should be encouraged not only to take his baccalaureate degree, but to fill his non-required hours with subjects as diverse as possible. One student emphasized this by insisting that the myth about the straight and narrow path to medical school desperately needs debunking.

In the face of contrary pressures from various sources to shorten the curriculum to save money, it was generally agreed that four years is not too long for the undergraduate medical curriculum. But it was also agreed that a lot of it needs to be unstructured and that this could be accomplished by eliminating redundancy in the curriculum through coordination of teaching among the departments. Some felt that all undergraduate basic science courses should be taught by MD's only, to provide the broad clinical overview, though the point was made that in fact excellence in teaching is an individual thing, and that most important is sensitivity on the part of the teachers to the needs of the students.

In answer to the oft repeated charge that teachers in medical schools are not trained as educators, the point was emphasized and re-

peated that neither are teachers in any academic field, but that good teaching depends on a knowledge of the field, a desire to impart information and to stimulate, and sensitivity to the needs of the student. There was a feeling on the part of all the panelists that teachers should understand and familiarize themselves with techniques of information transfer, but that in fact we do our best teaching by emulation. Several addressed themselves to the problem of dehumanizing influences in the medical school experience, indicating that some emphasis should be given in the curriculum to sensitivity training, making students aware of the broader problems and needs of patients, and emphasizing interpersonal relationships, both between doctor and patient, and doctor and doctor.

The moderator of the panel, Russell B. Roth, M.D., president of the American Medical Association, did a good job of fielding and distributing questions, which were for the most part written and turned in to the panel. He and the older members of the panel spent a good deal of time talking about continuing medical education, with emphasis on the concept of medical education as a continuum, beginning with the medical undergraduate or even premedical experience and extending for the rest of the physician's professional life. Fairly early in his experience, a physician begins to follow one of two paths, either diverging into the broadest possible field of family practice, or converging toward progressively narrower specialization. It was generally agreed that a specialist needs a broad understanding of his general field before subspecializing. This was carried on back to a general deploring of the impending demise of the internship, and in fact there was considerable support for the rotating internship for everyone. All of this would lead ultimately to two kinds of doctors, the primary physician and the consultant.

The use of the preceptor was encouraged, since it was argued that some of our best teaching is by emulation, and this is particularly true in family medicine. There was considerable feeling that not only would it be worthwhile for the individual in practice to return for short periods to academia, but that it would also be valuable for the full time academician to at the same time trade places with the practitioner, and also that it could be valuable for family practitioners to spend time in specialists' offices.

It was an interesting session, and it emphasized the fact that our commitment must be to con-

tinuing the education process in whatever form it may take, maintaining an ongoing relationship to the change which is occurring. It is now conceded that the half-life of a medical education is no longer the ten years which Osler said it was, but is more like five or six years. Voices outside the profession are clamoring for a need to "keep up," but one point worth emphasizing is that while this is purported to be the voice of the public, it would be more accurate to say that it is the voice of certain elements within society purporting to be the voice of society itself. That it is not necessarily accurate is indicated by the fact that while these voices are saying that health is the number one problem in the country, and are putting all their efforts in this direction, national polls have indicated that this feeling is not necessarily shared by society at large, most of whom like their own doctor and the medical care they receive.

They are being *told* that health care is our most pressing problem. A Harris poll, however, in which problems of this country were ranked by the interviewees, placed health care in 9th position, reinforcing the inference that there is a great deal *right* with American medicine in the eyes of the public generally. We need to pay close attention to who is doing the pronouncing!

All of this indicates that we cannot afford to be complacent. Those of us charged with the responsibility for medical education, both undergraduate, graduate, and continuing, need to continue to give our most serious thought and our best efforts to improving the quality and content of the learning experience. This does not include making changes for the sake of change, and certainly not simply to get grant money.

J.B.T.

On Being Sane In Insane Places

Recently Mr. Frank Sutherland, a reporter for the *Nashville Tennessean*, admitted himself to Central State Hospital as a "pseudopatient" with a diagnosis of suicidal depression. For six weeks, extending over Christmas, he endured institutional life, then simply walked out, to write a series of articles on what it is like to be sane in an insane place.¹

Charges of sensationalism have been leveled at the newspaper and at the reporter. Was it necessary to feign mental illness for any other reason? Did anything come to light that was unknown? Will it change anything? And are things really as bad as he pictured them?

To answer the questions in reverse order, it appears from subsequent testimony by the Commissioner of Mental Health that the picture is quite accurate, as far as it goes. The reporter gave a Wilson County address so as to be admitted to the Farmer Building, the oldest building in the complex, rather than to the new Davidson County unit, where conditions are much better. But we were shown the worst, as we should have been. Because of the series, some things are already changing. But until the public demands it be so, with dollar commitment, desired sweeping changes will not be possible. The articles place the blame for the situation where it belongs: at the feet of the legislature, which means your feet and mine.

Did anything unknown come to light? If one wants to know what the situation is, why not ask the patients who have been there? The obvious answer may seem too simple, yet it is correct. No one listens to a "crazy person," and a psychiatric diagnosis, once made, is forever. Any improvement is only "remission." Well, *did* anything unknown come to light? The reporter asked other patients if the food was ever any better, and was told they always know by the food when the governor is coming to visit. Yet I doubt that the Commissioner learned much from the report. The people who did learn are those for whom it was written—the public. Little was said that does not appear, albeit in perhaps less specific terms, in the reports of the Commissioner and his predecessors.

Well, then, why all the fuss? In answer, I wish to dwell on some specific items, which have to do with "Being Sane in Insane Places,"² the title of an article in *Science* about a year ago by D. L. Rosenhan, Professor of psychology and law at Stanford University, to which I have previously referred editorially.³

One of the saddest statements made by Mr. Sutherland is that our mental institutions have become a dumping ground for the aged. This also is not news. The 86th General Assembly (1970) directed the Legislative Council Committee to address the problem of the "aged mentally ill." Their report⁴ revealed that approximately one-third of the patients in our state mental institutions could be cared for in other types of facilities, and were there either because the county judge and/or the family did not understand the nature of commitment to the institution, or because no other facility existed for the care of these

patients. The first reason is sad, but the second is inexcusable.

Space does not permit consideration here of the reasons for the above, or for the recommendations, both of which are dealt with at length in the report. I simply wish to quote one very significant statement:

At the time of the completion of this report, Tennessee's government has been reluctant for several years to levy new taxes to increase tax revenues substantially. As members of the legislature, we find our recommendations inevitably affected by this climate of tax attitudes. The foregoing facts lead us to conclude that *there will not be enough new nursing home facilities within the next few years to take care of new admissions and also to remove such patients from mental hospitals.* [Preceding italics mine.—Ed.] *It is recommended that preference be given to preventing unwarranted admissions to mental hospitals in the future by having a screening and evaluation of patients to determine the level of care actually needed before admission. This should be done in the mental health centers or out-patient clinics of the mental hospitals.*

The success of the last recommendation above will depend upon the cooperation of county judges and the medical profession. A patient can now be committed to mental hospitals by a county judge upon a finding by two physicians. All county judges or chairmen and all licensed physicians should be appraised of the value of referring patients for screening and evaluation (psychiatric and medical) before commitment is authorized.

That was in 1970. Things haven't changed much. The hospitals are still dumping grounds, the legislature is loathe to raise taxes (because their constituents are), and in six weeks as a patient Mr. Sutherland never was seen by a psychiatrist, even on admission.

Since there are so many patients in our mental institutions who are at most only senile, hence somewhat helpless, whose primary need, in the words of the report, "is not psychiatric care but is, we believe, nursing care with a good measure of medical attention," we need to address the question of what it means to be "sane in an insane place." To do so, we need first to examine our attitudes and those of society towards the so-called mentally ill, among whom the senile are numbered—a sort of "guilt by association." I quote from Rosenhan, being aware that generalization can be dangerous. But the experience of his pseudopatients (he himself was one of them) and of Mr. Sutherland, lend credibility to his statements. (Our concern here is *not* what it

means to be *insane* in insane places, which is yet another problem.) He says:

The term "mental illness" is of recent origin. It was coined by people who were humane in their inclinations and who wanted very much to raise the station of (and the public's sympathies toward) the psychologically disturbed from that of witches and "crazies" to one that was akin to the physically ill. And they were at least partially successful, for the treatment of the mentally ill has improved considerably over the years. But while treatment has improved, it is doubtful that people really regard the mentally ill in the same way that they view the physically ill. A broken leg is something one recovers from, but mental illness allegedly endures forever. A broken leg does not threaten the observer, but a crazy schizophrenic? There is now a host of evidence that attitudes toward the mentally ill are characterized by fear, hostility, aloofness, suspicion, and dread. The mentally ill are society's lepers.

That such attitudes infect the general population is perhaps not surprising, only upsetting. But that they affect the professionals—attendants, nurses, physicians, psychologists, and social workers—who treat and deal with the mentally ill is more disconcerting, both because such attitudes are self-evidently pernicious and because they are unwitting. Most mental health professionals would insist that they are sympathetic toward the mentally ill, that they are neither avoidant nor hostile. But it is more likely that an exquisite ambivalence characterizes their relations with psychiatric patients, such that their avowed impulses are only part of their entire attitude. Negative attitudes are there too and can easily be detected. Such attitudes should not surprise us. They are the natural offspring of the labels patients wear and the places in which they are found.

Rosenhan used a technique similar to that of Mr. Sutherland, and I can only wonder if Mr. Sutherland had read his paper. There were 8 pseudopatients, which included 3 psychologists, a psychiatrist, and a pediatrician—all well established in their field—who were admitted to 12 different hospitals on the east and west coasts. The admitting diagnosis in each case was schizophrenia, based on auditory hallucinations. The hospitals encompassed all the various types, from a large university research type setting to small rural, often antiquated, hospitals. Though the experience varied somewhat with the setting, it was basically the same and quite like that of Mr. Sutherland.

Depersonalization and powerlessness were all-pervasive. The staff usually acted as though the patients were not there, and "at times depersonalization reached such proportions that the

pseudopatients had the sense that they were invisible, or at least unworthy of account." The patient was powerless, having been deprived of many of his legal rights by virtue of his psychiatric commitment. Personal privacy was minimal or absent.

This is not the place to delve into Rosenhan's theses concerning the reasons for staff attitudes, or the validity of psychiatric diagnoses. But the facts of the matter are not altered. His closing statements bear quoting:

I and the other pseudopatients in the psychiatric setting had distinctly negative reactions. We do not pretend to describe the subjective experiences of true patients. Theirs may be different from ours, particularly with the passage of time and the necessary process of adaptation to one's environment. But we can and do speak to the relatively more objective indices of treatment within the hospital. It would be a mistake, and a very unfortunate one, to consider that what happened to us derived from malice or stupidity on the part of the staff. Quite the contrary, our overwhelming impression of them was of people who really cared, who were committed and who were uncommonly intelligent. Where they failed, as they sometimes did painfully, it would be more accurate to attribute those failures to the environment in which they, too, found themselves than to personal callousness. Their perceptions and behavior were controlled by the situation, rather than being motivated by a malicious disposition. In a more benign environment, one that was less attached to global diagnosis, their behaviors and judgments might have been more benign and effective.

Our mental institutions are being upgraded, but not rapidly enough. Basic to the whole process is adequate legislative financial support. Without it, accreditation of our mental hospitals will not be possible, and we will be further impoverished by the loss of federal funds. Funds are also desperately needed to ensure that patients will not be committed who do not in fact belong in mental institutions, but are there simply because there is no other place for them to go.

The governor has appointed a blue ribbon committee to investigate Mr. Sutherland's allegations, and they have been largely substantiated. Remedial action has been recommended, to what end remains to be seen. A great deal of money will be required, and committee reports have a way of getting filed and soon forgotten. Public opinion is fickle, and its attention span is short. The quickest way often to stifle change is to investigate the object of the change and make recommendations for it. This can become the

end in itself, and the demands are thus satisfied.

We are the leaders in these areas by virtue of our education and training. We cannot evade our responsibility by leaving it to the psychiatrists and the Department of Mental Health. We must see to it that the report is implemented, and does not simply die in a file. Under the best of circumstances, mental institutions, by their very nature, will not be pleasant places. Compassion dictates that they must not become (or remain) "snake-pits" because of lack of funds, and that our "aged mentally ill" (i.e., senile) be spared the experience.

J.B.T.

1. Sutherland, Frank: Central State Series. *The Nashville Tennessean*, January 20-27, 1974.

2. Rosenhan, DL: On Being Sane in Insane Places. *Science*, 179:250-258, Jan. 19, 1973.

3. Study on Nursing Homes for the Aged Mentally Ill. Final Report of the Legislative Council Committee of the 86th General Assembly. State of Tennessee, FR-1970-B10.

4. "Persons vs. People"—Editorial, *TMAJ*, 66:466, May, 1973.

More On CME

The previous editorial on the subject of Continuing Medical Education (January issue of the JOURNAL) brought forth cries of anguish, and goaded some people to action, for which I can only say, "Hallelujah! It's about time."

First, I was attacked by the TMA president for not supporting our own Foundation's system. Because the January issue went to press December 15, at the time the editorial was written the Tennessee Foundation for Medical Care did not even *have* a system. But the editorial did lead to input by the CME Committee into the Foundation, so that its system is now geared toward filling the educational needs of the doctors of Tennessee, in addition to the needs of utilization committees. The Director of Continuing Medical Education, Mr. James Ingram, will be working closely in this with William Tribble, Ph.D., Acting Director of the Foundation.

Next came a letter from Paul M. Lewis, M.D., Executive Director of the Hospital Utilization Project of the Pennsylvania Medical Society, the prototype of TUP, excerpts from which appear below. (See Our Mail Box.) It turns out that unbeknownst to everybody around here, and unadvertised by Blue Cross (because the pressure was—and is—on for utilization, *not* for quality

control and education) TUP also has a Medical Audit component.

As has been repeatedly proclaimed in these pages, your CME Committee was hard at work a long time before all the hurrah about PSRO started. Suddenly education was crowded out, for reasons explained last month. We are still interested in the same things—to help your patients by helping you change your practice patterns. Anything that improves your practice will have a salutary effect on utilization. The cart has been put before the horse, largely because of pressure from the administrators (and I can't really fault them for it—they're under the gun themselves).

We—your CME Committee—are not pushing any one system. But we are pushing *a* system—*any* system which will give a data base on which to build a CME program. This is all tied in with Medical Audit or Quality Assessment or Medical Care Appraisal or whatever you wish to call it. Apparently any one of the three systems now in use—PAS/MAP, TUP, and the Foundation program are workable. Find the one that best suits your staff.

Since the Foundation is a part of TMA and therefore belongs to you, it looks as if the Foundation deserves your consideration. By the time you read this, a month from now, things should be getting pretty well shaken out. If it hasn't happened yet in your hospital, maybe *you* are the one to make it happen. It should—or rather, it *must*.

J.B.T.



January 30, 1974

To the Editor:

I have read your editorial concerning TUP in the January issue of the JOURNAL with both interest and concern. Since TUP is a replica of HUP (The Hospital Utilization Project of Pennsylvania), I hope that an explanation by me of the origin, structure, goals, and programs of HUP may be helpful in allaying any doubts as to the assistance TUP will be able to provide hospital medical staffs in your state.

HUP was established in Pittsburgh in 1963 by the Allegheny County Medical Society in response to expressed requests from hospital utilization and audit committees for personal and technical assistance that

might ease the workload of these overburdened committees. Its services were first limited to hospitals in Allegheny County, but in 1967 were offered throughout Pennsylvania. In that same year, HUP was endorsed as the program of choice by official action of the Board of Trustees of the Pennsylvania Medical Society.

HUP is a voluntary, non-profit Pennsylvania corporation, governed by a Board of Directors of 48 members. Of these, 25 are required to be physicians, of whom the majority must be in active practice. The Bylaws specify that the Executive Director must be a physician. There are now more than 190 hospitals participating in HUP; these include the major medical school hospitals, such as Thomas Jefferson, Temple, Hahnemann, the Milton S. Hershey School of the Pennsylvania State University, Geisinger Clinic, the Hospital of the University of Pennsylvania, Presbyterian-University of Pennsylvania Medical Center, the Medical College of Pennsylvania, the Graduate Hospital of the University of Pennsylvania, and the Children's Hospitals of Philadelphia and Pittsburgh as well as Children's Memorial Hospital of Chicago.

Our membership includes, as well, many hospitals of 200 beds or less, which do not have the sophisticated CME programs that exist in our teaching institutions. For all our members, however, we continue to provide not just complex computer printouts by mail, but the personal, in-house consultation and assistance to medical staffs that experience has shown to be so essential.

In 1969, as a further refinement for assisting medical staff committees, HUP developed an unique automated Medical Care Appraisal (MCA) option. The HUP-MCA program encourages the medical staff to develop its own criteria of quality of care (as does the ICAH), and the MCA computer program then provides the medical audit committee with "exception reports" listing those cases whose care did not meet the staff criteria and identifying the deficiencies. These are the cases that require further in-depth committee review; it eliminates much of the time required of busy physicians in poring through lengthy printouts to find the deviants or in review of cases whose care had indeed measured up to staff standards.

Another valuable tool for staff committees has been the development of our capability to generate "Special Reports" on request. The majority are in response to specific committee needs and programs. Each of our hospitals (and TUP) are entitled to 30 such reports per year without charge.

Recently, we have been conducting a series of regional peer review seminars for practicing physicians. These are organized and directed by our full-time Health Educator, with the program presented by HUP staff. This CME activity has been granted 4 credit hours in Category I by the Department of Continuing Medical Education, School of Medicine, University of Pittsburgh. I hope you will feel assured, as I am, that TUP can provide a most valuable resource to hospital staffs and committees in your state, just as HUP has done in Pennsylvania.

PAUL M. LEWIS, M.D.

Executive Director

Hospital Utilization Project

400 Penn Center Blvd.

Pittsburgh, Pa. 15235

To the Editor:

New threats to the prescribing freedom of the physician and to the quality of the nation's drug supply have surfaced in a new proposal of the Department of Health, Education, and Welfare.

The medical profession should be widely alerted to this newest suggested encroachment on the operations of our health care system. Quite bluntly, we believe that state medical societies should be better informed and more concerned over the proposal, which was announced by HEW Secretary Weinberger on Dec. 19, 1973, in testimony before the Health Subcommittee of the Senate Committee on Labor and Public Welfare. He said at that time that the Department planned to issue regulations to limit drug reimbursements under Medicare and Medicaid "to the lowest cost at which the drug is generally available unless there is a demonstrated difference in therapeutic effect."

The proposal is based on the unsupportable premise that the Food and Drug Administration can assure the uniform quality, efficacy and equivalency of all marketed drugs.

The facts are (1) that all drug products are not of equal quality; and (2) the FDA is in no position now, or in the foreseeable future, to assure their effectiveness or equivalency.

Given the large number of manufacturers, and the FDA's limited resources, the agency manifestly cannot make these guarantees. The number of inspections it can make, by its own account, is declining; indeed, it no longer reports publicly the number of plants it inspects. The number of drug recalls for safety, potency, and other quality problems remains persistently high.

Evidence as to the unequal performance of drug producers can be seen in a dramatic way from the records of the Department of Defense. For the period 1962 through 1971, the Military Defense Supply Agency, the world's largest single purchaser of pharmaceuticals, rejected 42 percent of drug product samples and gave failing marks to 45 percent of the production facilities inspected.

The scientific literature contains many reports showing a lack of therapeutic equivalency among generic drugs, many of them widely prescribed.

The issue, however, is not one of brand-name versus generic drugs. The issue is quality and source. The physician particularly is put in an unfair position. Only he knows which drug products have performed satisfactorily for his patients. What does he do, then, when he wants to prescribe a product more costly than the "lowest" priced one specified as reimbursable by the government? It would appear that the patient would have to bear the additional cost—which could mean a real hardship for the aged and welfare patients.

Hence the HEW proposal, as made on Dec. 19, is fundamentally inconsistent with the overriding principle of quality drug products and quality medical care for Medicare and Medicaid beneficiaries.

The medical profession should resist this unwise and impractical proposal. There are certainly better ways of cutting costs without jeopardizing physician freedom and patient care. By communicating meaningful price

and quality information to the professions and permitting the free market to operate, significant savings and the maintenance of high manufacturing and professional standards are practical and possible.

C. JOSEPH STETLER, *President*
Pharmaceutical Manufacturers Association
1155 15th St., N.W.
Washington, D.C. 20005



ELLIOTT, JAMES I., Bolivar, died January 21, 1974, age 41. Graduate of University of Tennessee, 1960. Member of Consolidated Medical Assembly of West Tennessee.

HARR, ELLIS U., Bristol, died January 22, 1974, age 45. Graduate of University of Tennessee, 1954. Member of Sullivan-Johnson County Medical Society.

WILSON, THAYER S., Carthage, died January 22, 1974, age 80. Graduate of Vanderbilt University Medical School, 1921. Member of Smith County Medical Society.

new members

The JOURNAL takes this opportunity to welcome these new members of the Tennessee Medical Association.

CONSOLIDATED MEDICAL ASSEMBLY OF WEST TENNESSEE

John P. Curlin, M.D., Jackson

FENTRESS COUNTY MEDICAL SOCIETY

Patrick B. Craven, M.D., Jamestown

KNOXVILLE ACADEMY OF MEDICINE

Charles G. Ange, M.D., Knoxville
Thomas K. Beene, M.D., Knoxville
K. W. Christenberry, Jr., M.D., Knoxville
R. Kent Farris, M.D., Knoxville
Charles A. Gouffon, M.D., Knoxville
Bennett F. Horton, M.D., Knoxville
Larry C. Huskey, M.D., Knoxville
D. E. Mooreside, M.D., Knoxville
Sam G. Pappas, M.D., Knoxville
Robert C. Russell, M.D., Knoxville
T. A. Sullivan, Jr., M.D., Knoxville
John D. Winebrenner, M.D., Knoxville
Paul E. Wittke, M.D., Knoxville

MARSHALL COUNTY MEDICAL SOCIETY

K. J. Phelps, Jr., M.D., Lewisburg

MAURY COUNTY MEDICAL SOCIETY

Norman R. Saliba, M.D., Columbia

SCOTT COUNTY MEDICAL SOCIETY

Aubrey D. Wills, M.D., Corbin, KY

programs and news of medical societies

Knoxville Academy of Medicine

The Academy met on February 12, 1974 at the KAM Headquarters Building.

Dr. Harriet P. Dustan, Vice-Chairman, Research Division, Cleveland Clinic, gave the Third Annual Larry Southworth Memorial Lecture at 8:00 P.M. Dr. Dustan spoke on, "Renal-Vascular Hypertension."

Memphis-Shelby County Medical Society

The Memphis and Shelby County Medical Society met on February 5, 1974 at the Baptist Memorial Hospital Auditorium and Seminar Center.

Dr. Jeremiah Stamler, Professor and Chairman, Community Health and Preventive Medicine, Northwestern Medical School, Chicago, spoke on, "Risk Factors in Atherosclerosis."

The House of Delegates met at 8:00 P.M. in the auditorium.

Nashville Academy of Medicine & Davidson County Medical Society

The Board of Directors met on January 15, 1974 at the TMA Building. The Board approved the Academy's participation in the AMA County Membership Support Program; accepted a report on Academy staff assignments for 1974; approved the rental of additional office space in the TMA Building for Academy-Foundation operations; and approved a recommendations of the Public Service and Communications Committee for telecasting the film "Countdown to Collision," dealing with disposal of solid wastes.

national news

THIS MONTH IN WASHINGTON (From Washington Office, AMA)

The American Medical Association has branded as "wrong medically, wrong morally, and wrong legally" the Health, Education, and Welfare Department's proposed regulation requiring pre-hospital-admission certification for Medicare and Medicaid patients.

In what appeared as an ending to a "deliberate effort on the part of the AMA over the past four or five years to cooperate with HEW," the Association announced that if the pre-admission certification regulation and the Professional Standards Review Organizations area designations were placed into effect, HEW Secretary Caspar Weinberger would be taken into court.

AMA President Russell B. Roth, M.D. and

Board Chairman James H. Sammons, M.D. at a press conference in Chicago made the following statement:

"We are here today to serve notice on Secretary Weinberger that if he proceeds with two proposed actions, we are going to take him to court.

"Earlier this month, the Secretary of the Department of Health, Education, and Welfare issued a set of proposed regulations that would require pre-admission certification for Medicare and Medicaid. If adopted as proposed they would require that every Medicare and Medicaid patient be cleared by a Utilization Review Committee before admission to a hospital. The only exception would be emergency cases.

"These regulations are a direct threat to the medical care of the 35 million or so patients who are served by Medicare and Medicaid. For most of them, the withholding of Medicare or Medicaid hospital benefits will mean that the individual will be denied hospitalization because they have no other means to pay for their care.

"Furthermore, such decisions would not be made on the basis of an examination of the patient by physicians. Rather, they would be paper decisions. The verdict would be rendered on the basis of what the patient's doctor put down on the record. It is likely that, as a practical matter in many instances, the decision would not be made by a committee of physicians or even a single physician but by an admitting nurse or other hospital administrative personnel.

"Any such denial of medical care represents a clear violation of both the spirit and the letter of the Medicare-Medicaid law. Congress clearly established the programs to provide medical care for the elderly and the poor. What the Congress has given, the Secretary now seeks to take away. The Secretary has no authority under the guise of regulations to amend the law and reduce benefits. He has no moral or legal right or authority to do so. Indeed, his action is as illegal as it is reprehensible. The Medicare-Medicaid law provides for pre-admission certification by the patient's physician and for post-admission review by hospital utilization review committees. The Congress did not intend that a committee substitute a paper decision for the judgment of a patient's physician. The Secretary's proposal is a direct and clear violation of Section 1801 of the Medicare-Medicaid law.

"We intend to fight Mr. Weinberger on this. His proposed regulations are wrong medically, wrong morally, and wrong legally. We are here

to serve notice on the Secretary that if he persists in putting the regulations into effect, the AMA will seek an injunction on that very same day to stop him.

"We would welcome support from all interested parties, such as senior citizen organizations and consumer groups. We would hope they would join in our action. But with them or without them, we will be in court on the day those regulations are promulgated.

"While we are in a suing mood, let me mention that we are also going to take on Mr. Weinberger in another area.

"This involves his gerrymandering of the PSRO district. Without getting too involved, let me say for those of you who don't know, PSRO stands for Professional Standards Review Organizations. These are supposed to be groups of doctors set up to review the quality and medical necessity of care given under Medicare and Medicaid.

"The AMA originally opposed PSRO. But once it became law, we decided that if such review was going to be done it would be better for all concerned if it were done by physicians.

"We decided to cooperate with HEW in the implementation of the law. I can tell you, we've had very little cooperation in return.

"Peer review—the concept on which PSRO is based—was invented by the medical profession and was in existence long before the government ever heard of the idea. There are many excellent and functioning peer review programs now in effect in this country, and we asked the Secretary to set up the PSRO designated areas (regional units) so as not to disturb them.

"This plea apparently fell on deaf ears. I won't hazard a guess as to the reason behind the Secretary's area designations. I don't think there were any. I think the decision was simply capricious and arbitrary.

"Our Board of Trustees has voted to join with any of our state organizations who want to go to court to upset the area designation in their state. Our preliminary indications are that seven or eight may do so.

"Let me say in closing that over the past four or five years we have made a deliberate effort to cooperate with HEW in implementing government programs for the benefit of the people. I think for a while there was good communication and good cooperation.

"That day apparently has passed. Of late we've had nothing but rebuff after rebuff. We've now been left with no recourse but to fight in our

own best interests and, we believe, in the best interests of our patients.”

* * *

Physician fees in 1974 have been ordered held to a four per cent increase by the Cost of Living Council.

Despite strong arguments from physician groups including the AMA for an exemption from all wage and price controls for the medical profession, the Council refused to step back from its November proposal to impose the four per cent ceiling.

As in November regulations, physicians under Phase IV will be permitted an annual aggregate fee increase of four per cent. A ten per cent maximum fee increase is allowed for specific charge items; fees under \$10 can be raised by \$1.

The limits are effective as of the first of this year. They remain legally in effect until April 30 by which time Congress must authorize an extension of the President's power to impose wage-price controls or they will expire. There is growing sentiment in the Senate and the House to terminate the program.

The regulations in the health field have been under court attack. Nursing homes have won a preliminary legal battle in their suit against the Phase III controls. The American Hospital Association has threatened to challenge the controls in court.

Hospitals were restricted to a 7.5 per cent increase per in-patient stay, with adjustments for volume changes.

Under the final regulations, all physicians must maintain a schedule showing prices in effect on December 28, 1973, which comprises 90 per cent of their revenues, and the subsequent changes and dates. “A conspicuous and easily readable sign” must be posted stating the availability and location of the price schedule. The requirement applies whether or not fees have been increased.

The Council said that physicians and medical laboratories that have not raised charges as allowed in the past will be allowed to apply the unused portion of increase up to a maximum of five per cent.

* * *

President Nixon is enthusiastically endorsing the Health Maintenance Organizations program effort getting underway at the HEW Department, according to federal health officials.

The government is “going all out” to implement the new law “as rapidly as possible,” Charles

Edwards, M.D., Assistant Secretary for Health, said.

Proposed regulations to carry out the HMO program will be issued by the end of March.

At a briefing of health reporters, Dr. Edwards announced that the director of the HMO program is Frank Seubold who has been serving as Deputy Director of the old HMO office as well as Associate Director of the Bureau of Community Health. Seubold, 51, is a Ph.D. chemist who came to HEW in 1971 after a career in the aerospace industry in California during which he became increasingly involved in space medicine and medical systems management work.

With respect to the new HMO law that authorizes \$375 million over the next five years, Dr. Edwards said that for the first time the government is going to be making changes in the economic base of health care delivery in this country. The HMO concept attains added importance, he told reporters, as the Administration and Congress move on national health insurance proposals.

* * *

Health outlays last fiscal year for the nation reached \$94.1 billion, an 11 per cent increase, the lowest rate in several years. The proportion of total health spending to the Gross National Product remained at the 1972 level—7.7 per cent. Per capita expenditures rose \$41 to \$441, including private and government spending.

The Social Security Administration's preliminary figures for the fiscal year that ended last July showed per capita private spending on health of \$265 and government spending of \$176 per person for the year.

The ratio of public versus private health spending continued the trend of two decades toward more government spending. The ratio for fiscal 1973 was 60.1 per cent private and 39.9 per cent public. In 1928, the corresponding ratio was 86.7 per cent and 13.3 per cent.

Of the \$94 billion total, \$36 billion went for hospital care, \$18 billion for physicians' services, compared with \$32.6 billion and \$16.6 billion the previous year.

Federal spending was estimated at \$24.6 billion, up almost \$2 billion state and local, \$12.9 billion, up more than \$1.5 billion.

Expenses for prepayment and administration, largely private health insurance expenses, rose from \$2.4 billion in fiscal 1972 to \$3.3 billion in fiscal 1973.

* * *

The American Medical Association recognizes that supplemental printed information given to the patient by the pharmacist at the physician's discretion would be valuable for certain classes of drugs.

However, the AMA stated at a Washington, D.C., conference on patient drug information that the preparation and distribution of such informational material pose a number of problems.

"Patients differ in their drug requirements with respect to dose, duration of therapy and adjunct medication. They also differ in therapeutic response, adverse side effects and toxic reactions. The information in a 'patient package insert' might be helpful to some patients but might confuse, frighten or even harm other patients."

The meeting of medical, drug and consumers representatives was told by an AMA spokesman that the usefulness of a patient package insert should be explored for a limited number of drugs. The AMA, the Food and Drug Administration and the manufacturer could cooperate in preparing informational material on a limited number of drugs, selected because they are used over a long period of time or have a high incidence of interaction with other drugs.

The acceptance of such material by patients and physicians and the impact it might have on the way in which patients used drugs should be assessed before encompassing a large number of therapeutic agents in the program, according to the AMA.

The FDA has been considering steps to broaden the package insert to assure it reaches patients for many drugs.

* * *

Dr. John Zapp, D.D.S., Deputy Assistant Secretary for Legislation of the HEW Department is resigning to join the Washington office of the AMA as Director of the Department of Congressional Relations.

Dr. Zapp, has been at HEW since 1969. He held a variety of posts including Deputy Assistant Secretary for Health Manpower. The 41-year-old official has been involved with health legislation for several years and has served as federal representative to the AMA-American Medical Colleges Liaison Committee on Medical Education.

Dr. Zapp will replace William Colley as the head of AMA's Congressional Relations Department.

personal news

DR. ALTON L. ABSHER, Knoxville, was recently presented a plaque for having served on the staff of St. Mary's Hospital since the hospital opened in 1930.

DR. JOE F. BRYANT, Lebanon, is one of six TMA members receiving congressional praise for their work to the South Vietnamese people. Other physicians include: RICHARD FRANCE, Nashville; NAT D. HYDER, JR., Erwin; W. WALTER PYLE, Franklin; PAUL SPRAY, Oak Ridge, and JOHN H. WOLAVER, Knoxville.

DR. JOHN W. CAMPBELL, Knoxville, has been named chief-elect of the Presbyterian Hospital medical staff. Other Knoxville physicians elected include DR. LOYD C. DAVIS, general chief of staff, and DR. JAMES R. GUYTON, JR., secretary.

DR. BLAND W. CANNON, Memphis, has been appointed vice chancellor for academic affairs *pro tem.* at the University of Tennessee Medical Units.

DR. ROBERT L. CRAIG, Chattanooga, has been elevated to medical director for TVA.

DR. T. H. CURTIS, Chattanooga, has been named chief of staff of the John L. Hutcheson Memorial Tri-County Hospital.

DR. LYMAN A. FULTON, Mountain Home, has been appointed chief of Medical Service at the Mountain Home Veterans Administration Center.

DR. BENJAMIN R. GENDEL, Memphis, has been appointed chief of staff at Memphis Veterans Hospital.

DR. A. L. JERKINS, Knoxville, has been named to the 12-member board of the American College of Emergency Physicians.

DR. E. GENE LYNCH, Morristown, has been made a Diplomate of the American Board of Family Practice.

DR. CARL D. MARSH, Memphis, has been elected Regional President for American Association for Clinical Immunology and Allergy, Southern Region. Also, elected secretary was DR. SAM H. SANDERS, Memphis.

DR. JOHN R. MORGAN, Chattanooga, has been certified as a pediatric cardiologist by the sub-board of the American Board of Pediatrics.

DR. DAVID P. McCALLIE, Chattanooga, has been elected chief of staff of Erlanger and Children's Hospitals. DR. THOMAS L. BUTTRAM was elected vice-chief of staff.

DR. HAROLD NEUENSCHWANDER, Knoxville, has been installed as chief of staff of the University Hospital. DR. JOHN KESTERSON was named chief-elect.

DR. HELEN ARTERBURN RICHARDS, Athens, has been elected chief of staff of Athens Community Hospital. DR. CHARLES T. CARROLL was elected vice-chief of staff and DR. DONALD B. GIBSON, secretary.

DR. ROBERT L. RICHARDSON, Memphis, has been elected president of the Faculty Senate at the University of Tennessee Medical Units.

DR. FENTON SCRUGGS, Cleveland, has been named to the Bradley Memorial Hospital board.

DR. HAL S. STUBBS, Bristol, has been elected chief of staff of Bristol Memorial Hospital. DR. H. W. BACHMAN, JR., was elected vice-chief of staff, and DR. W. F. SCHMIDT, was named secretary-treasurer.

DR. LEE L. WILLIAMS, Knoxville, has been re-elected chairman of the Knoxville Neighborhood Health Service.

announcements

CALENDAR OF MEETINGS

STATE

April 10-13 Annual Meeting of Tennessee Medical Association, Gatlinburg Auditorium, Gatlinburg

NATIONAL

March 25-27 American College of Surgeons, Houston

March 27 American Society of Clinical Oncology, Rice Hotel, Houston

March 29-April 3 American Society of Abdominal Surgeons, Caesars Place, Las Vegas

April 1-5 American College of Radiology, Roosevelt Hotel, New Orleans

April 4-6 American Pediatric Surgical Association, New Orleans

April 4-7 American Fertility Society, Diplomat Hotel, Miami

April 20-22 American Academy of Facial Plastic & Reconstructive Surgery, The Breakers, Palm Beach, Fla.

April 21-22 American Otological Society, The Breakers, Palm Beach, Fla.

April 22-24 American Association for Thoracic Surgery, Las Vegas Hilton, Las Vegas

April 22-25 American Academy of Pediatrics, Spring Meeting, Americana Hotel, Bal Harbour, Fla.

April 23-25 American Laryngological, Rhinological & Otological Society, The Breakers, Palm Beach, Fla.

April 25-26 AMA National Conference on Rural Health, Detroit Hilton, Detroit

April 28-May 2 Industrial Medical Association, Americana Hotel, Miami

May 16-18 American Cancer Society's National Conference on Childhood Cancer, Fairmont Hotel, Dallas

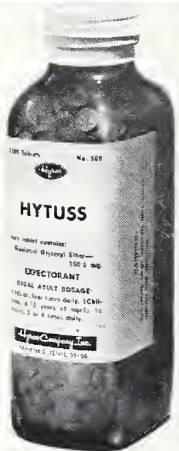
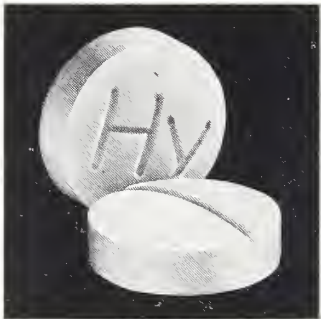
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3. Measured tablet dose.
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An identifiable white, scored tablet which significantly stimulates the secretion of respiratory tract fluid.

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(GLYCERYL GUAICOLATE 100mg.)



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Composition: Each sugar-free compressed tablet contains glyceryl guaiacolate 100mg. **Action and Use:** This preparation utilizes the effective expectorant action of glyceryl guaiacolate which significantly stimulates the secretion of respiratory tract fluid. The increased flow of less viscid fluid favors expectoration and has a demulcent effect on the tracheobronchial mucosa. The primary usefulness of Hytuss Tabs is to promote the change from a dry, unproductive cough to a productive cough. Hytuss is therefore useful in treating coughs due to the common cold, bronchitis, laryngitis, tracheitis, pharyngitis, influenza and the measles. The expectorant action of Hytuss may also provide symptomatic relief in some chronic respiratory disorders when the patient experiences spasms of dry nonproductive coughing. **Precautions:** Extremely large amounts may cause nausea and vomiting. **Administration and Dosage:** Adults—1 tablet four times daily. Children—6 to 12 years of age; ½ tablet 3 or 4 times daily. **HOW SUPPLIED:** White, scored, sugar-free, tablet in bottles of 100 - 1,000 - 5,000. **Product Identification Mark:** Hy. **Literature Available:** On request.

Available through all drug wholesalers.



continuing education opportunities

The continuing medical education accreditation program of TMA, has full approval by AMA's Council on Medical Education. If the continuing medical education program of your hospital or medical society is accredited by TMA's committee, you may receive for your attendance at its functions Category 1 credit for the AMA Physician's Recognition Award. If you wish information as to how your hospital or society may receive accreditation, write: Director of Continuing Medical Education, Tennessee Medical Association, 112 Louise Avenue, Nashville, Tennessee 37203.

Medical College of Georgia CME Courses

Date	Title, Location
March 21-23	Geriatric Problems in Family Practice, Medical College of Georgia, Augusta, Ga.
March 28-29	Gastroenterology, The Atlanta Marriott, Atlanta, Ga.
June 13-15	Internal Medicine, Buccaneer Motor Lodge, Jekyll Island, Ga.

American College of Physicians Regional Meeting

Alabama Regional Meeting, May 10-12, 1974, Point Clear, Alabama. INFO: Alwyn A. Shugerman, M.D., 1815 11th Ave., S., Birmingham, Ala. 35205

Network for Continuing Medical Education Schedule of Upcoming NCME Programs

March 11- March 24	THE BREAST EXAMINATION, with Angelo J. DePalo, M.D., Assistant Attending Surgeon, Memorial Hospital for Cancer and Allied Diseases, New York City.
	IS IT SINUSITIS?, with Melvin E. Sigel, M.D., Clinical Associate Professor of Otolaryngology, University of Minnesota Medical School, and Assistant Chief of the Department of Otolaryngology, Hennepin County General Hospital, Minneapolis, Minnesota.
	AN EFFECTIVE WAY TO CONTROL PSORIASIS, with Paul Lazar, M.D., Associate Professor of Dermatology, Northwestern University; Chairman of

the Audio-Visual Committee at the American Academy of Dermatology; and Chairman of the AMA Task Force on Cosmetics, Evanston, Illinois.

March 25-
April 7

A LOPECIA IN DIAGNOSIS, with Norman Orentreich, M.D., Clinical Associate Professor of Dermatology and Syphilology, New York University School of Medicine, New York City.

THE MEDICAL MANAGEMENT OF METASTATIC BREAST CANCER, with Justin J. Stein, M.D., Professor of Radiology and President of the American Cancer Society, University of California, Los Angeles.

THE DIFFERENTIAL DIAGNOSIS OF SYSTEMIC LUPUS ERYTHEMATOSUS, with Naomi F. Rothfield, M.D., Professor of Medicine and Chief, Arthritis Division at the University of Connecticut School of Medicine, Farmington.

For more information about NCME, write the Network for Continuing Medical Education, 15 Columbus Circle, New York, New York 10023.

The University of Tennessee College of Medicine Schedule of Continuing Education Courses, 1974

Mar. 25-30	Review Course, Memphis
Apr. 6-7	Pediatric Anesthesia, Memphis
Apr. 18-19	Leigh Buring Conference on Exceptional Children, Memphis
Apr. 29-30	Emergency Room Care, Memphis
May 10-12	Fundamentals of Clinical Otolaryngology, Memphis
May 15-18	Clinical EKG, Paris, Tenn.
May 20-24	Intensive Review of the Science of Anesthesiology, Memphis

Vanderbilt University CME Course Listings

Venereal Disease: A New Look at Treatment

Tenn. Dept. of Public Health; U. of Tennessee; Meharry Medical College March 16

Diabetes: 1974 April

13th Annual Seminar in Psychiatry

Central State Psychiatric Hospital; Tenn. Dept. of Mental Health; Meharry Medical College ... May

For further information contact:

Paul E. Slaton, M.D., Director

or

Marilyn Short, Administrative Associate

Vanderbilt Continuing Education

305 Medical Arts Building

Nashville, Tennessee 37212 Tel. 615-322-2716

Clinical Training Program For Practicing Physicians

Opportunities for advanced clinical education for physicians in family practice and in various subspecialties have been developed by the School of Medicine and the Division of Continuing Education of Vanderbilt University. The practicing physician, with the guidance of the participating department chairman, can plan an individualized program of one to four weeks to meet recognized needs and interests. The experience will include contact with patients, discussion with clinical and academic faculty, conferences, ward rounds, learning individual procedures, observing new surgical techniques, and access to excellent library resources. Experience in more than one discipline may be included.

Participating Departments and Divisions

Anesthesiology	Bradley E. Smith, M.D.
Medicine	Grant W. Liddle, M.D.
Cardiology	Gottlieb C. Friesinger, III, M.D.
Chest Diseases	James D. Snell, M.D.
Dermatology	Robert N. Buchanan, Jr., M.D.
Endocrinology & Diabetes	Grant W. Liddle, M.D.
Gastroenterology	Steven Schenker, M.D.
Hematology	Robert C. Hartmann, M.D.
Infectious Diseases	Zell A. McGee, M.D.
Renal Diseases	H. Earl Ginn, M.D.
Clinical Pharmacology	John A. Oates, M.D.
Neurology	Gerald M. Fenichel, M.D.
Obstetrics & Gynecology	Paul W. Griffin, M.D.
Pathology	Virgil S. LeQuire, M.D.
Pediatrics	David T. Karzon, M.D.
Psychiatry	Marc H. Hollender, M.D.
Radiology	John R. Amberg, M.D.
Surgery	
General	H. William Scott, Jr., M.D.
Neurological	William F. Meacham, M.D.
Ophthalmology	James H. Elliott, M.D.
Oral	H. David Hall, D.M.D.
Pediatric	James A. O'Neill, M.D.
Plastic	John B. Lynch, M.D.
Thoracic & Cardiac	Harvey W. Bender, M.D.
Urology	Robert K. Rhamy, M.D.
Cancer Chemotherapy	Vernon H. Reynolds, M.D.

ELIGIBILITY: All licensed physicians are eligible.

ADMINISTRATIVE FEE: \$200.00 per week.

CREDIT: American Medical Association Physicians Recognition Award and American Academy of Family Physicians Continuing Education accreditation.

APPLICATION: For further information and application, contact:

Paul E. Slaton, M.D., Director, Continuing Education
305 Medical Arts Building
Nashville, Tennessee 37212 Tel. 615-322-2716

American College of Chest Physicians Postgraduate Programs, 1974

The ACCP in co-sponsorship with leading medical schools and teaching hospitals offer physicians and surgeons a continuing education program specializing in the diagnosis and treatment of heart and lung diseases. The continuing education program for physicians sponsored by the American College of Chest Physicians has been accredited by the Council on Medical Education of the American Medical Association and is acceptable for credit toward the AMA Physician's Recognition Award.

For further information contact: Bradford W. Claxton, M. Ed., Director of Continuing Education, American College of Chest Physicians, 112 East Chestnut Street, Chicago, IL 60611.

Mar. 27-29—"Office Management of Respiratory Disease," Las Vegas, Nevada

Apr. 3, 4—"Advances in the Management of Acquired Heart Disease," Playboy Club Hotel, Great Gorge, N.J.

May 23, 24—"Critical Care Medicine—The Nurse, The Therapist, The Physician," Denver, Colorado

Symposium on Bone and Joint Radiology

The Departments of Diagnostic Radiology and Orthopaedic Surgery at the University of Kentucky Medical Center, Lexington, Kentucky, will conduct a symposium on Bone and Joint Radiology from May 1-3, 1974, immediately preceding the 100th Renewal of the Kentucky Derby. In the morning sessions a distinguished guest faculty will analyze radiographs of selected unknown cases that demonstrate differential diagnostic features of various types of bone and joint pathology. Each registrant will be sent copies of the radiographs of each case prior to the meeting. Afternoon sessions will be devoted to informal discussions between small groups of registrants and a member of the guest faculty.

For further details and an application form, write:

Ronald D. Hamilton, M.D.
Director, Continuing Education
College of Medicine
University of Kentucky
Lexington, Ky. 40506

Symposium on the Recent Advances In the Practical Management Of Allergic Diseases

A 3-day symposium will be held for the general medical community at a resort hotel this spring, with outstanding specialists in the field of allergy as featured speakers. A golf and tennis tournament will be held in conjunction with this symposium. Please contact:

Claude A. Frazier, M.D.
4-C Doctors' Park
Asheville, NC 28801

Postgraduate Symposium of Rheumatic Diseases

The 10th Annual Postgraduate Symposium on Rheumatic Diseases will be held on Thursday, May 9, 1974 in the auditorium of the Health Science Center, University of Louisville School of Medicine.

American College of Obstetricians And Gynecologists Annual Meeting

The 22nd Annual Clinical Meeting of the American College of Obstetricians and Gynecologists will be held April 29 thru May 2, 1974, Las Vegas, Nevada.

Highlights: Fifty papers on current clinical and basic investigation. The President's Program, "The Conquest of Breast Cancer." One panel will discuss the management of breast cancer (diagnosis, treatment, rehabilitation). In a second panel current concepts, etiology, pathology and research will each be a focus of an expert. These are 15 Position papers with current thinking on the more common and important problems in the specialty as seen by prominent authorities. Registration fee for non-members: \$125.00.

Contact: Mr. Donald F. Richardson, Associate Director,
The American College of Obstetrics and
Gynecologists,
One East Wacker Drive
Chicago, IL 60601

Audio-Cassette Directory Available

Many doctors rely upon audio-cassette tape-recordings for part of their continuing medical education, usually by subscribing to Audio-Digest or Accel or one of the other well-known educational services. There are, however, many other medical programs that are available on audio-cassettes, often without charge.

To aid the physician in locating these little-known but often useful programs, Cassette Information Services of Los Angeles has published its 1974 Directory of Spoken-Voice Audio-Cassettes. Although the services for the health sciences—medicine, nursing, pharmacy, dentistry, hospital administration—comprise a large portion of this 108-page directory, it lists programs in all fields and interests. These range from courses for accountants and management executives to inspirational and entertainment tapes for shut-ins. There is also a large selection of "how-to-do-it" programs, including many on such topics of interest to the physician as hypoglycemia, acupuncture and the Lamaze method of childbirth preparation.

The CIS Directory is not a catalog, but rather a compendium of program titles and subjects that can be found on audio-cassettes, a brief description of each (including price), and from whom the tape or more information may be obtained. The directory itself is available for \$5.00 from Cassette Information Services, Box 17727, Los Angeles, CA 90057.

Fourth Postgraduate Course In Head & Neck Anatomy

EAST CAROLINA UNIVERSITY
GREENVILLE, NORTH CAROLINA
May 28-31, 1974

The size of the class is limited to 16 students. All applications will be processed in the order received, and correspondence with applicants will be established promptly.

Tuition for the course is \$125; for students in residency programs, \$75. Persons wishing to apply should write for an application prior to May 1, 1974. Full payment must accompany each application, and checks should be made payable to East Carolina University.

For further information contact:

Department of Anatomy
School of Medicine
East Carolina University
Greenville, NC 27834

Tenth Postgraduate Symposium On Rheumatic Diseases

UNIVERSITY OF LOUISVILLE
SCHOOL OF MEDICINE
LOUISVILLE, KENTUCKY
May 9, 1974

The 10th Annual Symposium on Rheumatic Diseases, jointly sponsored by the University of Louisville School of Medicine and the Kentucky Chapter of the Arthritis Foundation, will be held Thursday, May 9, 1974 in the Health Sciences Center Auditorium, University of Louisville School of Medicine.

The theme of the program will be "Pathogenesis and Management." Topics will include osteoarthritis, ankylosing spondylitis, extra-articular complications of rheumatoid arthritis, systemic lupus erythematosus, gout, pseudogout, and seronegative arthritides, such as psoriatic arthritis and Reiter's syndrome.

There is no registration fee.

For additional information and a program, please contact:

Kentucky Arthritis Foundation
1381 Bardstown Road
Louisville, KY 40204

* * *

University of Kentucky Medical Center CME Courses

COLPOSCOPY SEMINAR

March 26-27, 1974

Registration Fee: \$200

A CURRENT EVALUATION OF AN OLD PROBLEM: DIABETES MELLITUS

April 5, 1974

Registration Fee: \$15

PRACTICAL THERAPEUTICS IN INTERNAL MEDICINE

May 27-31, 1974

Sponsored by:

University of Kentucky College of Medicine
and the
American College of Physicians

Registration Fee: \$140 ACP Members
\$ 70 ACP Associates
\$200 Non Members

For further information on any of the above, contact:

Ronald D. Hamilton, M.D.
Director, Continuing Education
College of Medicine
University of Kentucky
Lexington, KY 40506

The University of Michigan School of Public Health

The University of Michigan School of Public Health is offering a graduate program of study in Mental Retardation and Related Disabilities.

The postgraduate program is a 21 month course leading to an MPH degree and qualification in the field of Mental Retardation. Fees are regular school tuition in the School of Public Health; and terms begin in September and January.

For further information contact:

Arthur W. Fleming, M.D.
The University of Michigan
School of Public Health
Ann Arbor, MI 48104

AMA To Sponsor Fourth Hemisphere Nutrition Conference

The economics of food production in a world forced to establish priorities for limited supplies of energy will be a major theme of the Fourth Western Hemisphere Nutrition Congress Aug. 19-22 in Bal Harbour, Fla.

Some one thousand authorities on nutrition, medicine, food science and technology, agriculture, and economic development from 25 nations will seek to develop food and agricultural policies for the Western Hemisphere during the four-day Congress.

The meeting is organized by the Council on Foods and Nutrition of the American Medical Association and The American Institute of Nutrition, in cooperation with the Nutrition Society of Canada and La Sociedad Latinoamericana de Nutricion.

The 1974 Congress will feature continuing education sessions for nutritionists to provide an update of information for those who deal with malnutrition as it relates to disease. Malnutrition lowers resistance, and

the processes involved and possible means of combating the problem will be aired.

The opening plenary session of the Congress will include presentations on coordinating food production with human needs, influence of international financial policies on foods and nutrition, and agriculture and energy balance.

Other sessions will air such topics as minerals in nutrition, food and the environment, fat-soluble vitamins, perinatal nutrition, new developments in clinical nutrition, food design and consumer needs, and new and unusual foods.

The closing plenary session will hear a forecast of scientific developments, economic and resource trends, and mobilizing of society to responsible action. Another segment of the Congress will deal with nutritional excesses, such as over-dosing with vitamins and high protein diets.

Additional information on the Congress is available from the Department of Foods and Nutrition, American Medical Association, 535 N. Dearborn St., Chicago, IL 60610.

Dermatopathology Symposium

A three-day "Dermatopathology" symposium directed by Dr. A. Bernard Ackerman and sponsored by the departments of dermatology and pathology of New York University School of Medicine will be held on Oct. 7, 8, 9, 1974, in Alumni Hall, New York University Medical Center, 550 First Avenue, Manhattan.

The faculty includes: Drs. William Caro, Wallace Clark, Jr., Robert Freeman, Robert Goltz, Fred Gorstein, James Graham, George Ioannides, John Knox, Raffael Lattes, Herbert Lund, Hermann Pinkus, Daniel Richfield, Arkadi Rywlin, Lewis Shapiro, David Silvers, Richard Winkelmann and Ackerman.

The presentations will include all aspects of cutaneous pathology: inflammation, neoplasia, malformations and depositions. The emphasis in this symposium will be on mechanics of skin diseases, elucidating concepts about pathological processes, in addition to careful gross and microscopic pathologic correlations. The aim is to bring a fresh approach to understanding dermatopathology.

For detailed information inquire at the Office of the Recorder, New York University Post-Graduate Medical School, 550 First Avenue, New York, NY 10016.

* * *

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from the regional medical programs

TMS/RMP Receives Funds; Supports Area Projects

TMS/RMP has been awarded \$658,912 for the second period of FY 74, according to Program Director, Dr. Richard O. Cannon.

Projects which have been approved to receive funding out of these monies include:

Hypertension Follow-Up Program at Alton Park Community Health Center, Chattanooga—\$41,035.

Coordinated Pediatric Educational Service System, U.T. Memorial Research Center and Hospital, Knoxville—\$32,820.

Regionalization of High Risk Newborn Care, Vanderbilt, Nashville—\$19,200.

Nurse Clinician Project, Bradley County Health Department, Cleveland—\$14,898.

Wynn Habersham Clinic, United Health Services of Kentucky and Tennessee—\$32,000.

Development of Norms and Standards, Tennessee Foundation for Medical Care, Inc.—\$88,291.

Renal Dialysis Unit, Knoxville—\$13,200.

Nurse Practitioner Training/Meharry, Public Health Department, Cookeville—\$15,000.

Tennessee—Appalachian Nurse-Midwifery and Child Development Project, Kingsport—\$8,530.

Organ Donor Education Program, Middle Tennessee Kidney Foundation—\$19,138.

Utilizing Regular Teaching Personnel to Strengthen Public Health Education, Nashville—\$24,350.

**Georgia—Tennessee Regional Emergency Medical Communications System*, Chattanooga—\$50,000.

Chronic Kidney Disease Patient Care System, Vanderbilt—\$50,000.

**Pharmacists' Involvement with the Hypertensive Patient*, Middle Tennessee Pharmacists Association—\$2,500.

**Hypertension Screening*, Chattanooga Area Heart Association—\$5,000.

*Funding subject to compliance with restrictions and/or changes required by RMP's and/or TMS/RMP RAG.

**A Coordinated Systems Approach to Cost Reduction of Health Services*, South Central Health Planning Council, Columbia—\$10,232.
Standard-Procedure Development for Lymphedema Following Mastectomy, American Cancer Society, Tennessee Division—\$1,475.

**East Tennessee Emergency Medical Service System*, Knoxville—\$30,000.

These projects were reviewed and approved by staff and RAG members in October out of nearly 50 proposals submitted.

Dr. Cannon stated that "TMS/RMP, perhaps more fortunate than some other programs, has held onto its core staff and maintained a viable position in the Region."

New funding, \$1,127,742 for FY 74, while late in coming (\$466,830 in October, 1973 and \$658,912 in January, 1974) and somewhat encumbered by vague funding criteria and options, has been apportioned fairly and equitably throughout the Region.

EMS

Dr. Cannon noted that, "With the funding of the Pennyryle (Hopkinsville Area), Kentucky and Upper East (Tri-Cities) EMS (Emergency Medical Service) systems out of our initial six month funds, and the pending approval of funds for the Southeast (Chattanooga) and Mid-East (Knoxville) EMS', TMS/RMP has been a prime motivator in coordinating and funding EMS communications throughout the region."

TARP

"In addition, we are pleased to point to our involvement in the staff development, funding and cooperative arrangements put into the development of the Tennessee Foundation for Medical Care sponsored TARP (Tennessee Admissions Review Program) project, one of the most important programs in our state today and one of the largest, single grants awarded by TMS/RMP in its history. This is a major project in a meaningful area, that of quality assurance and cost containment . . . one that should have many positive effects in health care delivery."



Fraud: Government Issue

Not long ago I read that fewer than one-tenth of one percent of the nation's physicians were guilty of submitting fraudulent Medicare claims. I have never read or heard a figure representing the number of physicians who have been defrauded, not to mention defamed and maligned, by our government's Medicare program. I would guess it approaches ninety percent or more. And, of course, one-hundred percent of Medicare "beneficiaries" are victims of this politically motivated fraud.

If you find it difficult to accept these views as valid you are either naive or unaware of the meaning of 'fraud.'

From its earliest beginnings, Medicare has been represented to be a plan which would provide payments for physicians and hospitals engaged in the medical care of its subscribers. No mention was or has been made of the fact that the pretended underwriter and not the physician would determine the essential and therefore compensable elements of medical care. Certainly there has been no intimation that, in most cases, such determinations would be made independently and summarily by the officials of Medicare. Incomplete disclosure is a hallmark of fraud.

Traditionally, Medicare has been promoted as a program which would help preserve the health and prevent illness among its participants. In truth, however, it provides for payments only in connection with illnesses and thus discourages all health maintenance efforts. Deception is an integral component of fraud.

Completely ignoring the complexities of human illness and the great variation in the amounts of time needed to resolve those complexities, Medicare pretends that every case of pneumonia, for example, can be diagnosed and treated in exactly the same way and in exactly the same amounts of time, as any other case of pneumonia. A ludicrous pretension, even for a layman. Nevertheless, a physician who charges a realistic fee for the time he spends in caring for a patient who is afflicted with pneumonia and Medicare, is denied equitable remuneration. To compound the theft of his time, his patient is informed, in words typed on a financial transaction document, that his physician has overcharged him. There is no

suggestion that, in fact, Medicare has underremunerated the patient or underpaid his physician. Derogation of integrity and honesty is the forerunner and companion of fraud.

In its original form and size, with its restrictions and limitations, Medicare was viewed (probably erroneously) by physicians as providing a fairly reasonable schedule of payments; by economists as a possibly bearable burden and by the public as a real bargain. Since its birth, however, Medicare has, not at all surprisingly, undergone a rapid metamorphosis. From a small foot in the door, it has forced itself in, and is devouring great chunks of our resources. It is demanding more in premiums while giving less in benefits. It has increased the paper-work burden of physicians and hospitals; consequently it has raised the cost and reduced the resources of medical care for everyone. It has destroyed the confidentiality of and willfully alienated the physician-patient relationship. It is a parasite masquerading as a host. Trickery is characteristic of fraud.

MARK R. JOHNSON, M.D.

Reprinted from the

Oklahoma State Medical Association

Dec., 1973

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Changing Roles and Responsibilities In Health Care Delivery†

MERLIN K. DuVAL, M.D.*

One hundred and twelve years ago, Dr. Oliver Wendell Holmes was invited to make an address at the annual meeting of the Massachusetts Medical Society. During the course of his presentation, Dr. Holmes observed that men who go about their work according to the rules and practices of the day, without looking forward or backward, are practical men who "pull the oars of society." Then he told this story: "Sir Edward Parry and his party were going straight to the pole in one of their arctic expeditions, traveling at the rate of ten miles a day. But the ice over which they traveled was drifting straight toward the equator at the rate of twelve miles a day, and yet, no man among them would have known that he was traveling two miles a day backward unless he had lifted his eyes from the track in which he was plodding."

Underlying my thesis today is the observation that, for some time now, each of us has been so busy pulling his own oar—without looking at the horizon—that we are in danger of forfeiting control of our ship to someone else. My confidence that this observation is substantially correct derives exclusively from the fact that I have recently been privileged to occupy a seat from which the angle of vision clearly permitted me to see both the number and the source of the hands that are grasping for our tiller. It's my contention that it's time we grabbed it, ourselves.

To put this contest in perspective, I will spend a few moments describing the societal factors that have given visibility to the problem; I will then describe the professional circumstances that appear to be serving as deterrents to a resolution to the problem; and, last, I will describe some of the options that are available to us and will invite you to consider one in particular.

For the past few years, we have been hearing about a health care crisis in America. I am not

enough of an historian to pinpoint the time at which the contemporary movement began, and, in fact, have some doubts as to whether a discrete point can be identified. But there's little doubt that the movement gained tremendous momentum during the middle years of the Eisenhower Administration when, on the occasion of the White House Conference on Aging, it was announced that access to health care should be considered a right for each of our citizens. It was immediately after that that we first adopted the term, MEDICARE, when we applied it to the Medicare Act of June 7, 1956. Although this Act related solely to the dependents of members of the armed forces, it was barely a year later that the Forand Bill was introduced into the Federal Congress which, most of you will recall, provided hospital and medical care for the aged through Social Security. And, although this bill didn't get anywhere, three years later the Kerr-Mills Bill was adopted, primarily because it constituted a compromise between the position of the American Medical Association and the views of those who were interested in encouraging a revolution in the health field. Unfortunately, this was not enough and, within a year, the King-Anderson Bill was introduced—a bill that was so radical in its scope that it took 18 months and all the resources that the AMA could muster to defeat it.

It's probably of some significance that this movement has not been confined to the United States. People throughout much of the world have begun to think that access to medical care is a basic human right that should be independent of personal purchasing power and should come in a form that is convenient, comfortable, and free of offensive or discriminatory conditions. This observation is neither hearsay nor second-hand. As the principal delegate from the United States representing American interests in international health meetings—involving every nation in the world—I came to observe, firsthand, the degree to which this concern is now being registered.

In 1968, the late Walter Reuther, President of the United Auto Workers, described what he believed to be a health-care crisis in our own nation and announced that he was establishing a Committee of One Hundred whose objective would be to hammer out a plan to make good health care available to all. Shortly afterward, our own President came into office and further acknowledged the presence of a crisis in health

† Presented at the Annual Meeting of the American Association of Medical Clinics, Los Angeles, California—September 19, 1973.

* Vice President for Health Sciences, University of Arizona.

care and pledged his Administration to find solutions.

Ever since then, you and I have sat through heart-wrenching TV documentaries telling us not to get sick in America; we've read books on the crisis by politicians, economists, and laymen; and we have heard our profession described as money-grubbing mercenaries during nationally publicized Senate Hearings. The health-care crisis is in special vogue among consumer groups. It's "camp" to talk about it and, since almost everyone has either had to wait to see a doctor or could not meet a medical bill, our nation now abounds with self-proclaimed experts. One can no longer go to a cocktail party without picking up snatches of conversations such as, "health care is a right and not a privilege; national health insurance can solve everything; physicians ought to be drafted into a domestic peace corps; prepaid health care organizations may be the key to solving the problem; comprehensive health planning and regionalization hold the answer; the federal government ought to take over the whole health care business," and so on.

As further proof of this crisis, critics of our health care system have pointed to the fact that there are at least thirteen nations that have lower infant mortality rates than does the United States and that, in spite of our enormous technological capability, life expectancy is not only not increasing but, for the male is actually decreasing at this time.

Meanwhile, the professional associations that represent us have steadfastly attempted to show that other factors than the health care system are the real roots of the problem. A recent report from the California Medical Association, for example, notes that, ". . . Poor nutrition, failure to seek or follow medical advice . . . teenage and illegitimate births . . ." are highly conducive to such things as a significantly greater infant mortality here than in other developed nations. The report also notes that, ". . . In urban poverty-tract areas, there are large numbers of immigrants from the rural South and from Appalachia who are not aware of the benefits of good health care."

These same professional associations also point out that, even beyond such indices as infant mortality and life expectancy, there are other forces at work in our society which compromise the health of our people. Prime among these is our own human behavior. We eat, drink, and smoke too much and drive recklessly on the

highway—all in that great tradition of American optimism that says, "It can't happen to me."

In other words, if there *is* a crisis—and many medical professionals are not prepared to admit that there is—it is not a crisis that stems from defects in America's medical care delivery system.

Personally, I am convinced that there *are*, indeed, behavioral and environmental factors that influence the health of our people beyond the direct influence and control of the health delivery system generally and physicians specifically. I would also agree, and have made the point many times, that comparisons between statistics in the diversified and complex society that characterizes the United States with those of small, homogeneous European countries are invidious. On the other hand, I do have to ask: What constitutes our professional responsibility in making sure that all segments of our population are aware of the benefits of good health care? Suppose our infant mortality and life expectancy were second to none; could we then conclude that there is no health crisis? I don't think so. Webster defines a crisis as, "the turning point for better or worse in an acute disease or fever" and as, "an unstable or crucial time or state of affairs." I think that such definitions are reasonably appropriate to the affairs of health in the 1970's.

Next, let me turn to an examination of some of the characteristics of our profession that appear to be contributing to this crisis. First, American medicine is characterized by its extraordinary scientific and technological base. Without dwelling on this point, it is apparent to most that our much admired technical excellence and competence are, at the same time, major factors in the high cost of illness. Further, we are having increasing difficulty in demonstrating that our investment in this scientific and technological base has materially improved the general level of the health of our people.

Second, we are one of the only remaining nations in the world that has continued to make our medical services available on an almost exclusively fee-for-service basis. With all the strengths and advantages that are inherent in this system, there can be little doubt but that such a system appears to be incompatible with a public policy that would presumably provide co-equal access to our services for all of our citizens, rich and poor alike.

Third, our profession is intrinsically self-determining and is self-regulating. To me, this is the key to the problem. To be of maximum

value, a profession must serve as a trustee of the knowledge and the skills that constitute its very reason for existence; it must select, examine, and monitor those who would be admitted to its study and to its practice; and it must also accept responsibility for constantly seeking out and identifying the new techniques and technologies that will keep its offerings contemporaneous with the needs of the people it serves. I might add that such charges are freely given to the learned professions by society. More importantly, society has placed very few constraints on us as we administer and conduct our professional affairs. I would submit that it is precisely this absence of constraint that makes it possible for each of us to be as effective as we are in meeting the needs of our patients.

On the other hand, I have already implied that it is precisely this degree of self-determination of our profession, and the rights that we grant to each of our practitioners, that are the basis of our problem. We know that society already holds the physician in very high regard; it acknowledges his long and arduous training, his special expertise, his science and his art. Each of us is well-respected and well-compensated for his services. We are free to choose the town or city in which we will live and practice; we select our own associates, our own hospitals, the organizations with which we will participate as members. We are free, if we choose, to limit our practice and, at least to some extent, may even select much of our own patient clientele. In association with our fellow physicians, we have mounted the most productive program of medical research that has ever been assembled, and we have established a record of scientific accomplishment that has no parallel in the history of recorded time. We can transmit and interpret a man's vital signs not only from the next room but from a vehicle that is making an orbit around the moon; we have almost eliminated smallpox, diphtheria, and poliomyelitis; we can manipulate genes, start life in a test-tube and transplant organs from one human being to another. Such are the advances and rewards that are possible when a profession is free and has members who, with the consent of the public they serve, are willing to define the scope, the direction, and the integrity of the profession they serve.

As professionals, we would say that such advances are characteristic of the American, free-enterprise environment and should be protected at all cost. But, society is becoming more sophis-

ticated and is not buying this argument any more. Instead, it is saying that the chief characteristic of private enterprise is free choice in a free marketplace; free choice by the supplier as well as free choice by the consumer. Society would say that within such a system, when there is a deficiency in the distribution of the product or service, competition, in a free marketplace, will correct it. They would then point out that medicine obeys none of the basic laws of economics—it is not in the least subject to the phenomena of the marketplace. The consumer has almost no direct impact on the supply of physicians, where they will locate, what they will practice, whom they will accept as patients, or what their services will cost. Indeed, if medicine makes more services available, more and not less are used, and the unit price goes up, rather than down. In other words, medicine is a monopoly that is being transfused by an extraordinary public investment in research, facilities, and manpower. And, whenever one transfuses a monopoly, one tends to make it fat, self-satisfied, and even self-indulgent.

As evidence of this, our society is pointing out that despite its enormous recent investment, the increased output of new physicians entering medical practice is not able to meet the increasing demand for care. In 1968, for example, our medical schools graduated 8,500 medical and osteopathic physicians. Last June, we graduated 11,400. Our physician to population ratio is among the best in the world—we have approximately 133 physicians providing direct patient care to every 100,000 members of our population. But, where are they located? In Boston, the ratio is 251 per 100,000 and in Alabama and Mississippi and the Bronx, the ratio is less than 70 per 100,000. Society points to the distribution among specialties as nonsensical. In 1929, only one-fourth of our physicians were specialists. But 1971, more than three-fourths were actively engaged in one of the specialties, and the family physician—the primary provider of most care—accounted for only 17 percent of all physicians. As a result of increased specialization, we actually have 5,000 fewer family doctors now than we had in 1957. In a nutshell, professional preference has been allowed to go too far.

And this, in my judgment, sets the stage for the contest. As physicians, we believe that we have certain rights of self-determination; rights that many would say should not be tampered

with unless we are willing to run the risk of dismantling one of the greatest professional enterprises that has ever been assembled. Meanwhile, our patients have chosen to declare certain rights for themselves; in other words, having provided most of the resources that helped make us successful, they have now enunciated their own expectations in the field of health. The demand is for a solution to the problem of the inequitable distribution of health services in such a way that the rights of all individuals can be respected and accommodated, with dignity.

Before considering a few of the options that I think we, as professionals, have for addressing this thorny problem, I feel compelled to make one additional observation. Many of you would undoubtedly side with several of my friends who believe that I have over-stated and over-dramatized this case. Further, it is reasonable to guess that at least some of you may, even now, be irritated that one of your fellow physicians should appear to be so critical of his profession. You may even be able to mount evidence to prove, at least to yourselves, that things really are not all that bad. I have no trouble dismissing such evidence because, in the real world around us, that evidence isn't going to be counted. The danger lies not in facts but in perceptions. And I can tell you, without equivocation, that I have accurately described what is perceived.

Time does not permit a full exposition of all the options that may be available to us to close the gap between the perceived need of our people to have access to quality health services and our professional capacity to see that they are delivered. But, I will briefly describe five such options because they are being given serious consideration at this time. I will then conclude with a brief presentation of a sixth possibility that is particularly pertinent to this audience.

The first option is to increase our physician manpower. The premise underlying this option is that, if we had more physicians, supply and demand factors would assure both a better distribution and a lowering of costs. Unfortunately, there is no evidence that this premise is correct; on the contrary, those nations with the highest current ratios of physicians to population have the same distributional problems that we have in the United States. Further, while the ratio in the United States has been improving in recent years, both the distribution and the cost problems are actually getting worse. I have already cited the reason; that is, as long as each phy-

sician has free choice in the American marketplace, he will almost invariably choose his location, and the type of services he will render, to meet his own needs rather than those of his market. Increased physician manpower is, then, not an answer.

Second, there is the possibility of conscription. I believe I am correct when I say that we are the only remaining nation in the western hemisphere that does not conscript its physicians to non-military public service. I am not now talking about indentured service, rendered as a part of a repayment scheme in exchange for meeting the costs of an undergraduate education. I am talking about forced conscription. Speaking for myself, I have never previously embraced this solution as reasonable, but there is an increasing number of public policy makers who are coming to hold the view that forced conscription is an entirely proper *quid pro quo* for the privilege of a professional education and, indeed, I am reluctantly confident that efforts to conscript physicians will appear in several different forms within the next few years.

A third option will be to increase the production of first-contact physicians, either through existing medical schools or through the establishment of new types of medical schools. Personally, I see no immediate way in which our existing American medical schools can successfully implement this option as long as they continue to mount programs in family practice in the same scientific and educational environment in which America's specialists are trained and educated. Equally important, evidence is increasing that, even when family practitioners *are* trained in such an environment, most of them will not later locate in underserved areas. If this option is selected for action, it will only be successful through the establishment of new types of medical schools. If time and circumstances were different today, I could discuss, at some length, the likelihood that this will be occurring soon.

Fourth, we can draw more heavily on our military experience and upgrade our capacity to transport patients to sites where facilities and professional manpower are located. Numerous experiments are now under way in the United States to test the feasibility of this option and, before long, we should have a firmer feel for the degree to which this solution may be pertinent.

Fifth, as a consequence of an anomalous marriage between advanced technology and the will-

ingness of our contemporary educational institutions to educate new types of paramedical personnel, our existing institutions and physician manpower are being extended into underserved areas. The problems that attach to this type of solution are, however, still considerable; the technological expense is great, the legal implications are substantial; and there are important unresolved social ramifications such as the possibility that two classes of medical care may result. Here, too, as with the transportation option, some fascinating experiments are now under way and, over the next few years, it will be possible for us to measure, more accurately, the benefits that may be derived from this option.

But, even if all of these options were implemented, whether in various combinations or in the aggregate, I do not feel it likely that they will suffice because they do not demand enough of the participating professional sector. Indeed, most of these options could be put in place now without requiring any but the most modest changes in the way we currently conduct our affairs. In a word, they are not professionally derived solutions to what I construe to be a professional problem.

Is there an existing professional entity that has the capacity to come to grips with this problem? I have given much thought to the organizational entities that already exist, but I have concluded that the American Medical Association, the American Osteopathic Association, the state medical societies, and even the county medical societies are ill-equipped to implement the particular proposal I am about to advance for your consideration. The reason is simple. Such organizations constitute, in effect, a taxonomy—that is, a method for classifying and organizing practicing professionals for the purpose of conducting their affairs in a relatively traditional manner. As if by definition, once one selects a taxonomy for the purpose of achieving any particular objective, one also precludes the possibility of achieving certain other objectives. Such is the case with these organizations. I have also considered, seriously, the possibility that our large specialty Colleges might do the job, but I am inclined to the view that their internal disparities do not render them likely candidates either. And, while I visualize an increasingly important role for our academic health science centers, they are not candidates because the rendering of service is not for their primary responsibility.

By saying all of this, I am not saying that

physicians, representing different disciplines and medical specialties *cannot* get together and meet the needs of a particularly identified population. The Kaiser-Permanente Foundation, Group Health Associates, the Puget Sound Experiment, and other similar enterprises have clearly shown that such is feasible. The current Administration in Washington believes that the Health Maintenance Organization may also serve as a vehicle for achieving that objective. Maybe so; but I'll reserve judgment on that.

The proposal that I would lay before you today is based on two premises. The first of these is that the existing gap in the delivery of health services cannot be closed except and unless those services are actively marketed. Stated differently, the American medical profession—irrespective of how it is organized—will not be successful in closing the gap as long as its mode of operation is limited to examining, diagnosing, and treating each person who presents himself with a problem. This is a passive/receptive mode—convenient for us, perhaps—but it is inadequate if we are to get our services distributed to those who may need them. The second premise is that a new taxonomy—organization, if you prefer—must be created if we are to market our services; and that organization must be based on practicing specialists working in concert with all like specialists, regionally. Each regional organization of specialists could examine its own market for the services it can render and then, by any arrangement that seems appropriate, meet those needs within that regional marketplace by developing a system of its own. Needless to say, as each of these “single specialty” systems is developed, a second phase would be entered when cooperative arrangements developed between different regional specialty groups to integrate and rationalize the dispensing of all services to individual patients.

The advantages of such a solution are probably obvious to this audience. Each of our professional disciplines would make the decisions that are pertinent to its own discipline because no one else can do it better. By sharing the entire regional workload among all the members of one specialty, all patients could have access to their services—no one need be left out. Hospital use could be rationalized; duplication of expensive resources could be minimized; individual competencies and interests could be maximized; escalating costs could be plateaued; and the traditional indices of health could be improved.

That such a proposal is feasible can be illustrated with an example; in my state, we have undertaken a pilot experiment geared to this model. Under the leadership, in this instance, of the Department of Pediatrics at the College of Medicine, a statewide neonatal effort was mounted. Joint planning was undertaken by the University and interested elements in both Phoenix and Tucson—neonatologists, the entire state pediatric community, the Division of Maternal and Child Health of the State Health Department, and the State Legislature. Implementation of the program consisted of identifying a limited number of intensive care nurseries, (two each in the two metropolitan areas), and stopping other duplication; establishing a transport system utilizing ground, helicopter, and fixed-wing aircraft; establishing a system of registered nurse and neonatologist visits to the outlying hospitals to establish procedures and insure maximum care for infants in the first hours of life prior to transport; developing teams who actually transported the infants from the hospital of origin to one of the metropolitan communities, delivering high

quality specialty care en route.

The results have been dramatic. In less than five years, perinatal mortality has been reduced by over 30 percent with the result that Arizona's rank, with respect to this statistic, has fallen from 43rd to 11th. What is more, the survivors appear to be neurologically healthy babies.

I cite this example only to show that the principle can be made to work. I might have selected orthopedics, neurosurgery; or any other specialty as my subject, but I did not yet have such an example.

The constituent members of this organization represent an almost ideal group to consider such an arrangement. At the beginning, those of you who represent single discipline groups may have an advantage through the first phase of the arrangements, this should not constrain those of you who represent multidiscipline groups from starting because, after the initial arrangements are completed, the advantages lie with you as you get to the second phase of the arrangements—that is, the arrangements between specialties. You would, of course, have to reach outside your own

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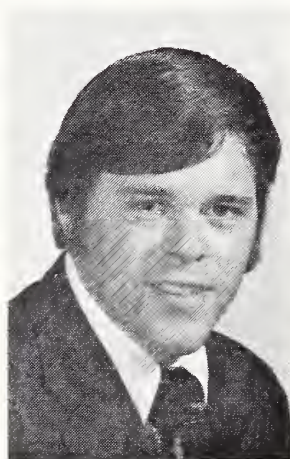
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groups to achieve the objective, but that need not interfere with your internal business arrangements and, in any event, is enormously offset by the professional leadership you would have demonstrated by bringing such an arrangement into your community.

You are probably thinking, "I don't quite see how it would work in my community." Let me try clarifying it with a hypothetical example. In any given community—or part thereof in the case of a larger metropolitan area—all available orthopedic surgeons, for instance, could meet and undertake an analysis of the total needs of that community for orthopedic services. I am talking about the full range of orthopedic services—trauma, ambulance and emergency services, elective orthopedics, rehabilitation services, Crippled Children's programs, and so forth. On completing the analysis, the group could then determine what community resources are available; what are still needed; and how much unnecessary duplication exists. Through an agreement between and among themselves, they could then insure that all candidates for orthopedic care in that com-

munity could be accommodated within the available professional and physical resources. Economic status of the patient would not be a barrier since the total load would be shared; expense from unnecessary duplication could be avoided; and the incessant public clamor for better services would be stilled. Most important of all, a professional solution to an intrinsically professional problem will have been offered, and the specter of a governmental prescription for achieving such an objective will have been eclipsed.

I would be the first to concede that variations in geography; the demography of population distribution; local political considerations; interpersonal and professional relationships; and many other factors may preclude the possibility that some of our medical specialties could succeed in such an endeavor, but such factors should not keep you from wanting to try.

As I said at the beginning, if each of us continues as we are now, pulling our own oars without regard to the control and direction of our boat, we may wake up to find the wrong hand on the tiller. Let's grab it, ourselves.

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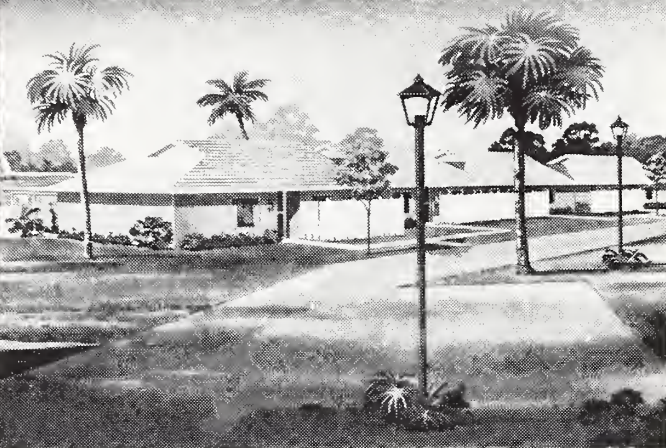
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*A History of Hospitals in Davidson County, Tennessee**

J. L. FARRINGER, JR., M.D.

Since we, as surgeons spend so much time within hospitals and since those of us in Nashville enjoy such fine hospital facilities, it occurred to me that a review of the history of Nashville hospitals might be of interest to many.

There were many physicians in Davidson County and many diseases were known and treated and surgical operations were performed, especially upon the injured, in the first half of the nineteenth century. The first mention that I have found of a hospital, however, is in the report of Mr. Featherstonehaugh, an Englishman who visited Nashville in 1835. He reported having seen a hospital under construction across from the Penitentiary which was located at that time in the vicinity of what is now Eighth Avenue and Broad.¹

In 1848 St. Mary's Catholic Church was constructed and occupied at the present location. This left vacant the small church of the Holy Rosary, built by the Irish workers in 1830-1831 who came here to build the first bridge across the Cumberland. The Sisters of Charity of Nazareth (Ky.) established a hospital in the former church building, at the corner of Gay Street and High Street (6th Ave.).² This was known as St. Johns Hospital and was used during the first session of the Medical Department of the University of Nashville for teaching purposes. The building burned and the Sisters of Charity left Nashville in 1851.

During the next half century hospitals in Nashville were closely intertwined with medical education. Davidson Academy was established by the North Carolina Legislature in 1785; this Academy

in 1806 received a Federal Land Grant and was renamed Cumberland College. In 1826 the Trustees petitioned the Tennessee Legislature to rename Cumberland College the University of Tennessee. Instead the legislature designated it the University of Nashville. As early as 1837 Dr. Phillip Lindsley the President of the University of Nashville planned and strove for a Medical Department but it did not materialize until 1850. By this time, resignations and death of three of the four members of the faculty, and the prevalence of cholera in the preceding two sessions, resulted in reduced enrollment and forced the closing of the literary department of the University of Nashville.³

On October 11, 1850 the trustees of the University accepted a proposition by Dr. W. K. Bowling and Dr. John Berrien Lindsley (son of Phillip) giving a newly formed medical club complete independence in the operation of a medical school. The medical faculty selected by Dr. Bowling and Dr. Lindsley obtained a twenty-two year lease on the building of the University at 2nd Avenue and Lindsley, most recently known to us as the Children's Museum. (Fig. 1) The Medical Faculty agreed to enlarge and equip the building and permit all improvements to revert without cost to the University upon the expiration of the lease.

The Tennessee legislature in 1833 had appropriated money for the erection near the corporate limits of Nashville, South of Vauxhall Gardens (8th and Broad), a stone building for use as an insane asylum.¹⁹ This building would accommodate 50 patients. In 1848 money was appropriated for a fine new 250 bed insane asylum on Murfreesboro Road, which began to

* Presidential address, Nashville Surgical Society, November 20, 1973.

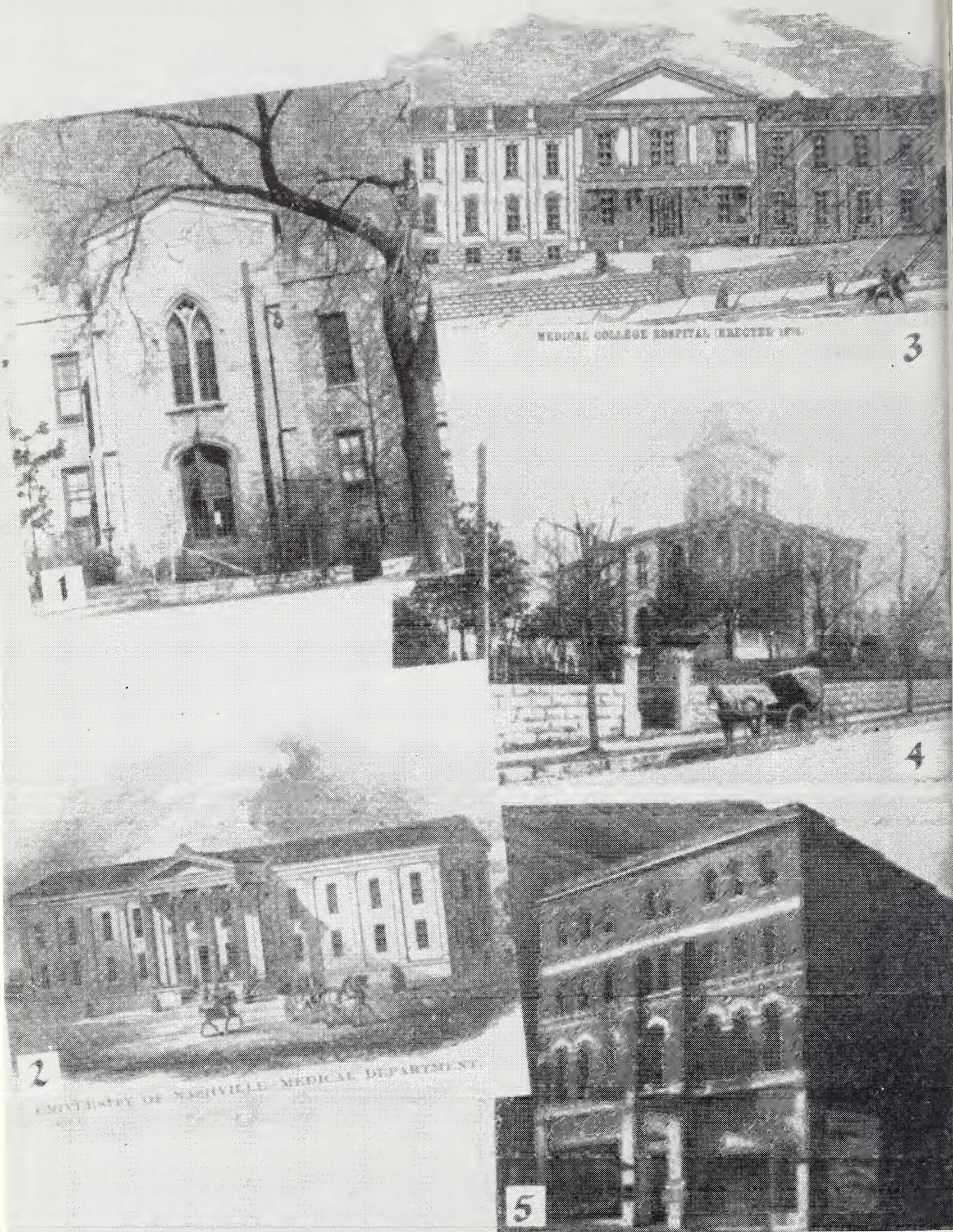


FIG. 1, Original Building of University of Nashville Medical Department; FIG. 2, University of Nashville Medical Department, erected about 1856; FIG. 3, Medical College Hospital erected 1875 after consolidation of University of Nashville and Vanderbilt University; FIG. 4, Dr. Richard Douglas's Infirmary; FIG. 5, Nashville Medical College of University of Tennessee erected 1880.

receive patients on March 1, 1852. At that time the state legislature renamed the small hospital in Nashville the Tennessee State Hospital and placed it under control of the Medical Department of the University of Nashville, a relationship which continued until the state hospital burned in 1863.³

Dr. Otis Warr, in the section on Medical Education in the Centennial History of the Tennessee State Medical Association, states that "some four or five years later St. Vincent's Hospital was established near the college and was placed under the control of the faculty."³

In 1858 Drs. John P. Ford, John H. Callender, and Thomas L. Maddin obtained a charter "for the Shelby Medical College of the Central University of the General Conference of the Methodist Episcopal Church, South."³ Thus the first step was taken in a movement that later resulted in establishment of Vanderbilt University. The buildings of this new institution were located on Broad Street between Vine (7th Ave.) and Spruce (8th Ave.) where the U.S. Customs House now stands. The catalogue for the first session stated that one wing of the medical school was the city hospital where all the indigent of the city and the U.S. Marines (presumably merchant marines) were cared for.⁴

The occupation of Nashville by Union Forces and the economic and manpower drain imposed upon the South by the War between the States forced the closing of Shelby Medical College in 1862.

The University of Nashville Medical Department continued to operate during the years of occupation and reconstruction.

The Union Army established hospitals in Nashville, and the records show twenty-five Army Hospitals in operation in 1863, one of which was, of course, in the Medical School building, and it is stated that the professors still lectured and the students still listened although literally surrounded by the dead and dying and while the cannon of Fort Negley boomed forth. School buildings, churches, gun factories, warehouses, the Nashville Female Academy and the old Planters Hotel were among the buildings converted to hospitals. Of particular interest is the reference to the use of the Pest House on University Pike.⁵

A Convention of the Methodist Episcopal Church, South, meeting in January 1872, set up a Board of Trust to form a Central University. By March of 1873 Bishop McTyeire had persuaded Commodore Cornelius Vanderbilt to give

\$500,000 to this Central University. The board immediately changed the name to Vanderbilt University, and later the Commodore gave another \$500,000.⁶

The Medical Faculty of the University of Nashville offered its services to the new Vanderbilt in April 1874. The Board of Trust accepted and an agreement was reached whereby Vanderbilt acquired without the outlay of any funds the buildings, library, museum, and faculty of a well respected medical institution. (Fig. 2) Students could enroll in either the University of Nashville or Vanderbilt University, but all occupied the same classrooms and laboratories and for many years were taught by the same faculty. In at least some instances, a student could pay two graduation fees and receive a diploma from both institutions. The faculty of the University of Nashville Medical Department had meanwhile extended its lease until 1892. In 1875 a Medical School Hospital was erected.³ (Fig. 3)

The Catalogue for the 1874-75 session stated that St. Vincent's Hospital and the State Prison Hospital "will supply abundant clinical material."⁷

In October 1876 the Medical Department of the Central Tennessee College was chartered for the purpose of educating Negro physicians. Dr. G. W. Snead, an ex-Confederate Army Surgeon, and Dr. G. W. Hubbard, a former Union Army Medical Corpsman and a 1876 graduate of the University of Nashville Medical Department, were the guiding hands in the establishment of this Institution. In 1900 Central Tennessee College became Walden University. In October 1916 Meharry Medical College obtained a separate Charter.⁸

Drs. Duncan Eve and W. F. Glenn organized the Nashville Medical College in the summer of 1876. They drew from the faculties of the medical departments of the University and Vanderbilt University Drs. Paul F. Eve, T. B. Buchanan, George S. Blackie, W. P. Jones and J. J. Abernathy. The first session began March 5, 1877 on the second floor of the post office building at Fourth Ave. and Cedar Street. The next two sessions were conducted in the Douglas Building on South Market Street (2nd Ave.). (Fig. 4) In 1880 the medical school building was erected on Broadway between Sixth and Seventh Avenue. Until it burned in recent years we knew this building as the Ansley Hotel. (Fig. 5)

In the Spring of 1879 a dental department was

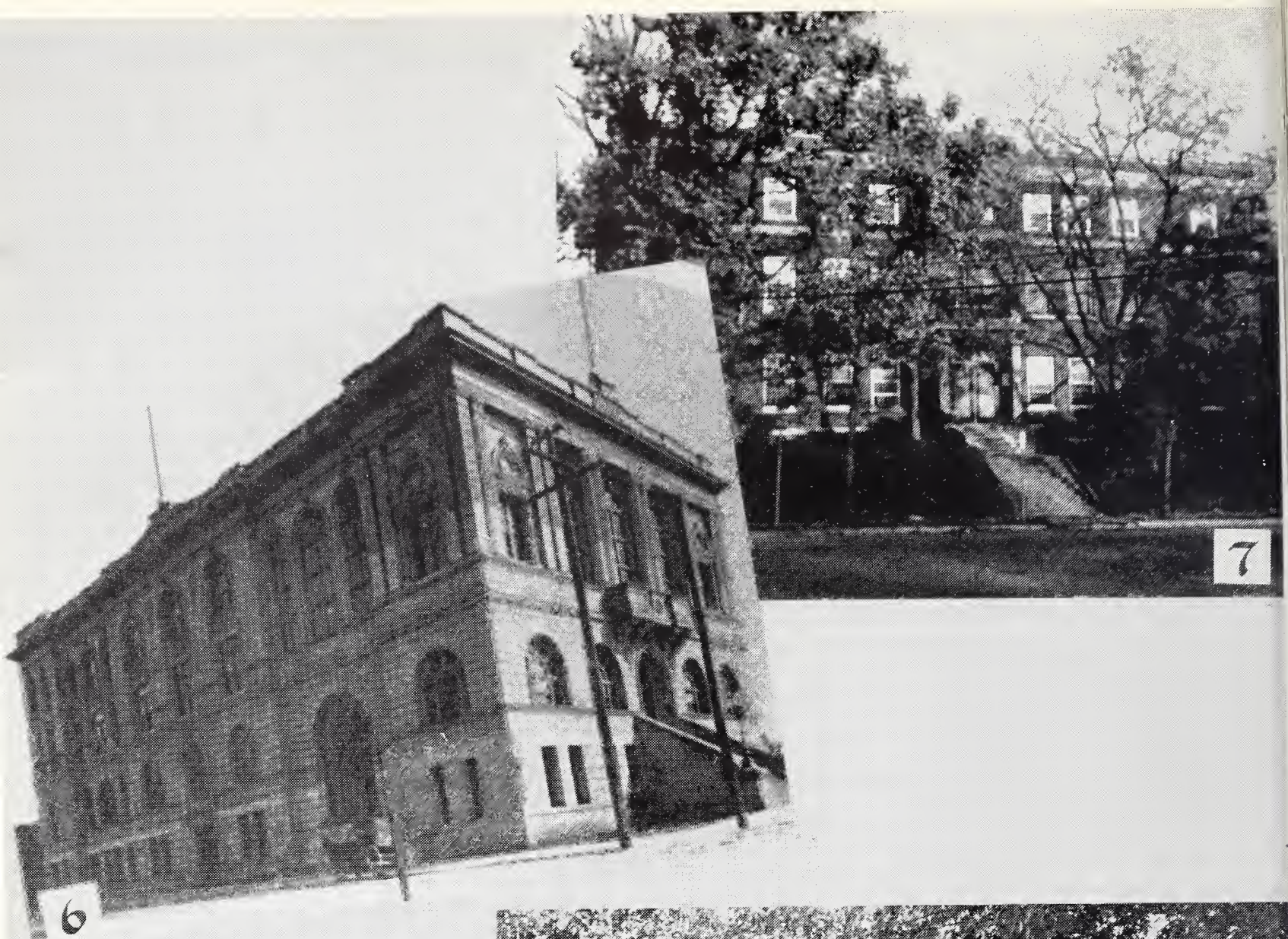


FIG. 6, Vanderbilt Medical School erected about 1895; FIG. 7, Barr Infirmary erected 1911. Used in recent years as Florence Crittenden Home; FIG. 8, Dr. Briggs Infirmary in 1901; FIG. 9, Hospital on the grounds of Tennessee Centennial Exposition, 1897.

established, the first dental school in the South. In 1879 the Nashville Medical College was adopted as the medical department of the University of Tennessee.³

The twenty year relationship between the University of Nashville and Vanderbilt University came to an end in 1895. Vanderbilt erected a medical school building at Fifth Avenue and Elm Street.³ (Fig. 6) In 1911 Vanderbilt University purchased the campus and buildings of George Peabody College for Teachers in South Nashville, thus greatly expanding their facility.

While medical education was thus evolving in our city, the students and professors had for their patients, within the medical school hospitals, chiefly the indigent and prisoners. The well-to-do citizens were for many years cared for and operated upon in their homes. However, as surgeons became bolder in their attacks upon disease and injury, there sprang up private infirmaries, which were often the offices and hospitals of one man or one man and his assistants or preceptees.

The Douglas Infirmary flourished well into the 1890's, and its operation was continued by Dr. Richard Barr until he built his new Barr Infirmary at 1815 Division Street in 1911. This building is now the Florence Crittenden Home. (Fig. 7) Dr. Lucius Burch operated an infirmary at the location of the Douglas Infirmary until he was called to active duty in 1917. Briggs infirmary located at 421 South College Street continued to receive patients into the Twentieth Century.⁹ (Fig. 8)

The McGannon Hospital, later the Tennessee Woman's Hospital and still later a Baptist Hospital (1903), was located at the site of the present Federal Reserve Bank.¹⁰ This building will be remembered by many as the YWCA annex. Dozier Hospital on Eighth Avenue, North, near the present Werthan Bag Company, served many of the well-to-do citizens of North Nashville.¹¹ I am sure there were many other infirmaries whose identities are lost in the midsts of time.

During the Tennessee Centennial Exposition in 1897 there were two emergency hospitals on the Exposition grounds, one for white patients and one for blacks. These were staffed with resident physicians who serve two or four months each at \$18.00 per month. The hospital for white patients had an operating room complete with a glass operating table.¹² (Fig. 9)

According to Clayton's History of Davidson

County, there was a Nashville Infirmary located at the corner of College and Priestly Streets, which was established in 1876 and was staffed by faculty of University of Nashville and Vanderbilt University. The superintendent was M. Baxter, M.D. "A skilled corps of nurses is in constant attention and a competent resident physician has immediate charge of the patients." Lying-in Department "assures thorough privacy in such cases" wards \$5.00/week, private rooms \$8.00-\$14.00/week.¹³

In 1898 Bishop Thomas Byrne, of the Catholic Diocese of Nashville purchased the estate of Judge Jacob Dickinson, who had been appointed Asst. U.S. Attorney General. This property, between Hayes Street and Church Street and extending from twentieth to twenty-first Avenue became the St. Thomas Hospital. (Fig. 10) The residence of Judge Dickinson was used as a hospital during the construction of a new building which began receiving patients in 1902. The Sisters of Charity of St. Vincent De Paul were justly proud of the new hospital and had photographs made which have fortunately been preserved. (Fig. 11) The operating room (Fig. 12), the pharmacy, the kitchen, the patients room (Fig. 13), and the nurses dining rooms were of the most modern design.¹⁵

By 1917 it was necessary to add a wing onto the West side of the original building. Many of us can still remember the fine sun porches at the West end of each floor. The marble halls and push button systems by which the patients could summon the nurses were points of great pride.¹⁵

A wing was added in 1928 extending still further west to house among other things a new obstetrical division.¹⁵

In 1960 the East building was added, bringing the total bed capacity to 333. (Fig. 14) At the present time construction is well under way for a new St. Thomas Hospital on Harding Road. This will incorporate the latest in electronic equipment, computers, operating suites and automated features that are available in 1973.

Meanwhile across town in South Nashville the University of Nashville had erected a new building at Second and Elm. (Figs. 15 and 16) In 1909 the Nashville Medical College of the University of Tennessee consolidated with the 59 year old University of Nashville Medical Department and moved into the building at Second and Elm. The old University of Tennessee Building on Broadway was converted into a teaching hospital and was known as the Tennessee Hospital.

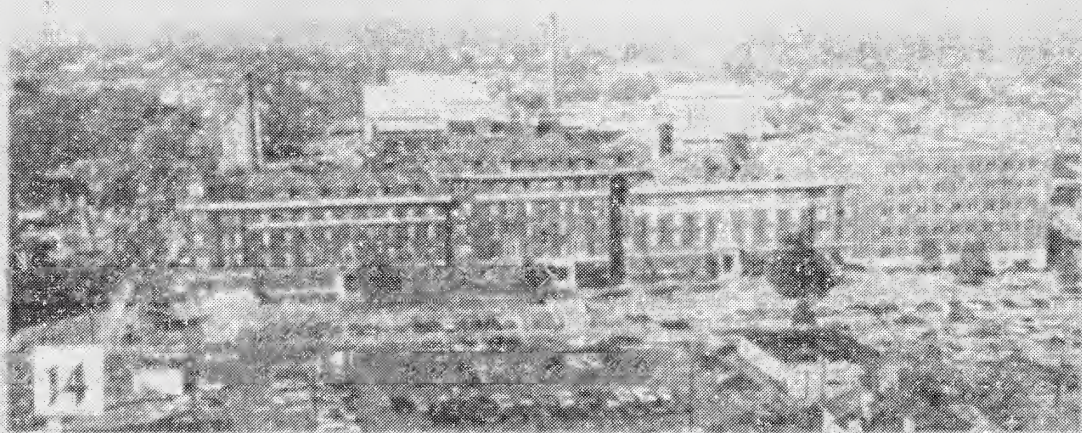
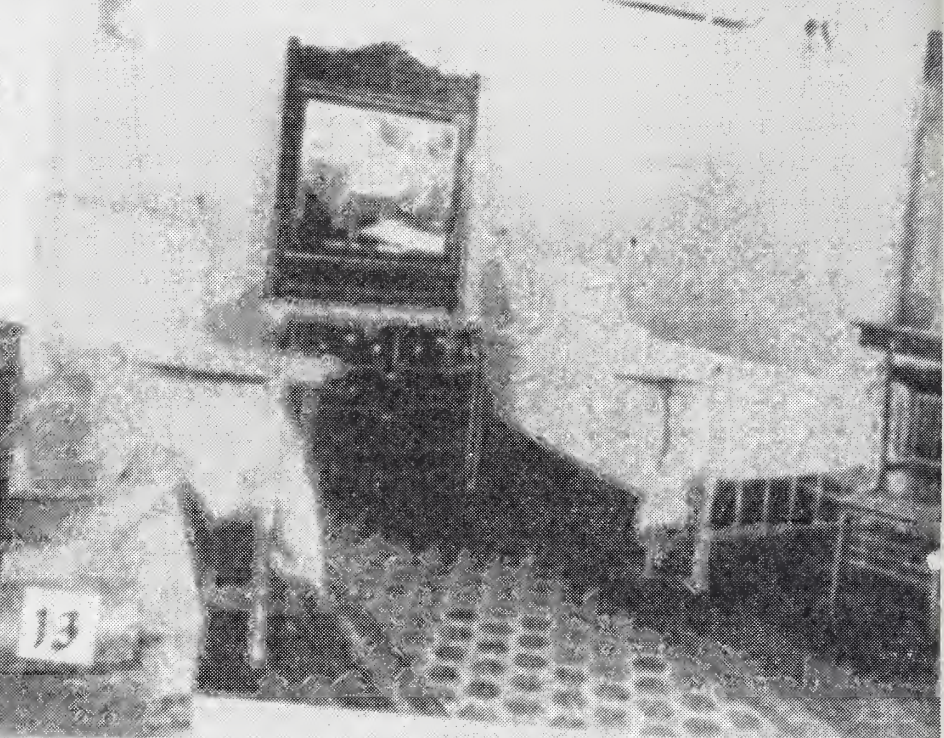
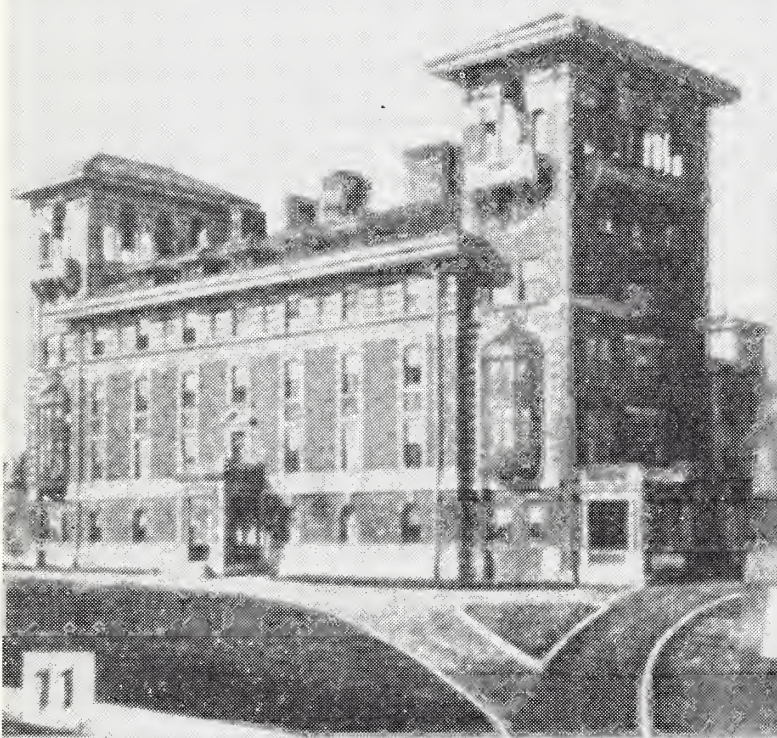
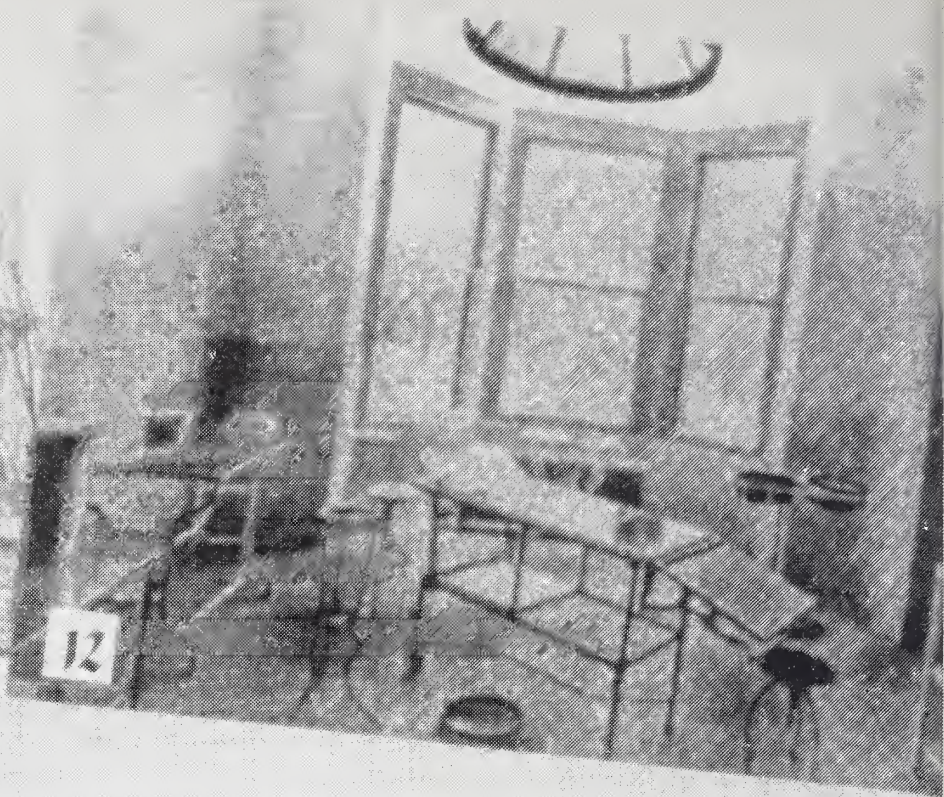


FIG. 10, Judge Jacob Dickinson's Residence, used as St. Thomas Hospital, 1898-1900; FIG. 11, St. Thomas Hospital, completed 1900; FIG. 12, Operating Room, St. Thomas Hospital, 1900; FIG. 13, Patient's Room, St. Thomas Hospital, 1900; FIG. 14, St. Thomas Hospital between 20th and 21st on Hayes Street. 1973.



FIG. 15, University of Tennessee and University of Nashville Building at Second Avenue South and Elm Street, erected about 1909; FEB. 16, Rear view of FIG. 15 showing circular amphitheatre; FIG. 17, Early drawing of Nashville General Hospital, original building; FIG. 18, Original Nurses Residence of Protestant Hospital. Part of Property Purchased from Nashville College of Young Women; FIG. 19, Original Building of Protestant Hospital, 1919; FIG. 20, Winter Scene, Protestant Hospital, 1919.

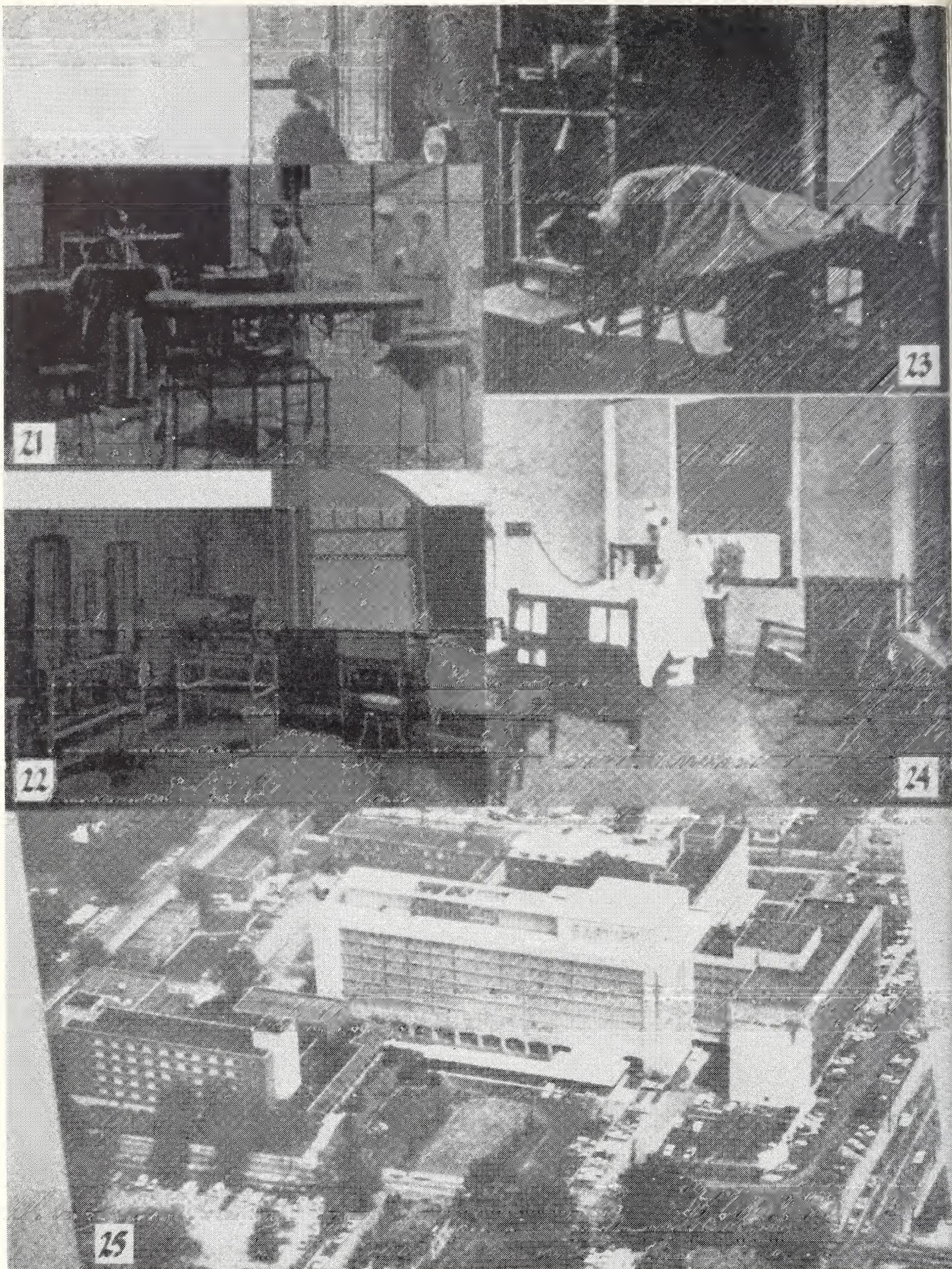


FIG. 21, Operating Room, Protestant Hospital in East Wing, 1924; FIG. 22, The Sterilizing Equipment in the New East Wing, Protestant Hospital, 1924; FIG. 23, Latest in X-ray equipment installed in Protestant Hospital, 1924; FIG. 24, Patient's Room, Protestant Hospital, 1924; FIG. 25, Baptist Hospital, 1973.

This apparently continued to serve in this capacity until the University of Tennessee was moved to Memphis in 1911. At this time Vanderbilt University bought the old University of Nashville Medical Building, recently the Children's Museum. In 1915 Dr. William Litterer bought the "new" University of Nashville building at Second and Elm and gave it to Vanderbilt. It became known as the Litterer Laboratory.³

Prominent citizens had worked for many years for the establishment of a hospital to care for the indigent of the city. In 1823 the State Legislature authorized a lottery for the purpose of raising money to build a City Hospital.¹ The history books record that the lottery was held but the funds raised were apparently not sufficient to build the hospital. It was not until 1879 that the City Council authorized the construction of a City Hospital, and in February 1890 this institution began to receive patients. It housed 65 beds and Dr. Charles Brower was the superintendent. (Fig. 17) In 1891 the school of nursing was established. This was the second such school in the South, the other being in New Orleans. Until 1921 there was a one-man staff who treated all the charity patients, although both Vanderbilt and the University of Tennessee used its wards for teaching. In 1921 a new charter was drawn and a new board appointed. For eight months of the year the faculty of Vanderbilt University rotated on the different services. For the remaining four months non-faculty local physicians staffed the hospital on a rotation basis. In 1932 a new wing was added bringing the bed capacity to 260. It is interesting that in 1933 Dr. Cleo Miller, then two years out of his residency there, was listed as the superintendent.¹⁵

Through the years City Hospital has had its trials and tribulations due to various budgetary restrictions and other problems. I recall vividly visiting a friend who was interning there in 1944. It was December and money was running short. There was only a limited supply of tetanus anti-toxin available and the doctors had to weigh carefully the need for this in each patient. There was no D5S left in the supply room in 1000cc bottles but some of this solution was available in 500cc containers. Fortunately Nashville General Hospital is once again a teaching hospital of Vanderbilt School of Medicine and the City Council supplies adequate funds.

The Davidson County Hospital was originally built in 1892 as a hospital for mental patients and a County Old Folks Home. In 1898 Dr.

W. W. Core, the father of Dr. W. J. Core, was the superintendent of this hospital. Some general hospital care was given and some surgery performed there. Later Dr. Henry Brackin, Sr. was the superintendent and this hospital continued as a mental hospital until 1965. Today this hospital, known to many of us as the Bordeaux Hospital, serves as a county nursing home.¹⁶

The Davidson County Isolation Hospital was opened in 1904 to care for the indigent of the county with infectious diseases.

Davidson County established a Tuberculosis Hospital on North Hamilton Road in the Bordeaux Community in 1914. This hospital continued to receive patients until 1960.¹⁷

In 1918 Dr. Van Sanders decided that Nashville needed another hospital for the care of private patients other than the numerous small infirmaries. The property of the Nashville College of Young Women between Twentieth and Twenty-First Avenue and fronting Church Street was purchased.¹⁵ (Fig. 18) The college building was renovated and opened as the Protestant Hospital with 80 beds. (Figs. 19 and 20) The east wing was added in 1924 bringing the bed capacity to 110 beds and 18 bassinets. The new wing incorporated a parlor on the first floor, modern operating rooms (Figs. 21 and 22), with a comfortable lounge and locker room for the surgeons. Modern X-ray equipment was installed. (Fig. 23) Patient's rooms were spacious and many contained telephones. (Fig. 24)

In 1930 the Dozier Hospital and the Baptist Hospital (established in 1930) merged with the old Protestant Hospital. By 1933 the hospital was in the hands of receivers and was being administered by the Nashville Bank and Trust Co. Many of the local physicians had invested money in this institution and some of you may have stock certificates found among your fathers' papers. Of interest are the listed charges in 1933. Private rooms \$3.00 to \$8.00 per day. Semi-private rooms were \$2.50 to \$4.00 per day. Wards were \$2.50 to \$4.00 per day. Operating room fee \$5.00 to \$10.00. Delivery room fee \$10.00. Average bed patient day cost was \$5.50.¹⁴

The Tennessee Baptist Convention bought the hospital in 1948 and added the South Building in 1950. Since that time almost continuous renovation or building has been in progress with the Ford Annex opening in 1956 and the Central Building in 1967 until today this Baptist Hospital has a capacity of 635 beds. (Fig. 25) Early plan-

ning is in progress for additional expansion.

Expansion and building had continued on the South Campus of Vanderbilt University after the move of the University of Tennessee to Memphis. The Methodist Church had begun the construction of Galloway Memorial Hospital in 1912. (Fig. 26) Apparently there was a problem in funding since when this hospital was deeded to Vanderbilt University in 1919 it was still not completed. In this same year Chancellor Kirkland obtained from the Rockefeller Foundation a grant of \$4,000,000 for re-organization of the Medical School,¹⁵ and in 1921 the decision was made to move to the West Campus. The \$4,000,000 from the Rockefeller Foundation plus another \$3,000,000 from this same source and a grant of \$3,000,000 from the Carnegie Foundation made possible the construction of the Vanderbilt Medical School and Hospital in its present location. (Figs. 26, 27 and 28) In 1956 the Light Laboratories were added using money donated by the Light family. In September 1962 the round building was completed and on October 15, 1972 the Werthan building further expanded the hospital and medical school facilities. (Fig. 29)

Nashville General Hospital, St. Thomas Hospital, Vanderbilt Hospital and Protestant Hospital continued to provide the only facilities for general hospital care in Nashville proper for many years. In 1938 Madison Sanitarium constructed facilities and began receiving patients for other than mental illnesses. Expansion has continued until today there is a 200 bed capacity at Madison Hospital.

During 1940 the State of Tennessee purchased the building of the old Masonic Home on Ben Allen Road and opened the Middle Tennessee Tuberculosis Hospital. The present building was completed in 1940. With the decline in tuberculosis and the shortened period of hospitalization required for this disease the name was changed to the Middle Tennessee Chest Disease Hospital in 1970.¹⁷

The United States Army built and activated in 1943 Thayer Army General Hospital on White Bridge Road to serve as a Zone of the Interior Hospital. This facility continued to treat Army personnel during World War II and in January 1946 was converted to a Veterans Administration Hospital. In May 1963 a new building was erected adjacent to Vanderbilt University Hospital.

The Miller Clinic, started by Dr. Cleo Miller in

1937, added additional facilities and was licensed as a hospital in 1962.

That same year the Park Vista Nursing Home, less than a year old, began converting some of its beds to hospital beds and some surgery was performed in a small operating room on the ground floor. In 1965 the East Wing was added and modern operating rooms provided. In 1968 Hospital Corporation of America was formed and bought Park View Hospital. In April 1973 a psychiatric pavilion was opened in conjunction with Park View.

Hill Burton Funds and contributions from private citizens made possible the opening of a second hospital in East Nashville on July 5, 1965. Memorial Hospital now serves the needs of many of our citizens in what was at one time known as Edgefield.

In 1970 the Hospital Corporation of America built the Donelson Hospital to serve a rapidly expanding area of Davidson County.

In 1973 West Side Hospital was opened by General Care Corporation as a full service general hospital.

So we see that through the passing years hospital facilities in our city and county have continued to grow in number and in proficiency. Today there are 3,270 general hospital beds in Davidson County and more are either under construction, on the drawing board or in the planning phase. The surgeons of Davidson County are indeed fortunate in having an adequate number of beds in modern, well-equipped, well run hospitals in which to practice our art.

REFERENCES

1. Wooldridge, J: *History of Nashville, Tennessee*. Publishing Methodist Episcopal Church, South, Nashville, 1890.
2. Flanagan, GJ: *Catholicity in Tennessee*. Ambrose Printing Co., Nashville, 1937.
3. Hamer, PM: *Centennial History of Tennessee State Medical Association*. Tennessee State Medical Association, Nashville, 1930.
4. Catalogue, Shelby Medical College, Nashville, 1858.
5. Plaisance, SF, and Schelner, VOF, III: Federal Military Prisons in Nashville, May and June 1863. *Tennessee Historical Quarterly*, 29:166, 1970.
6. Shelley, HS: From a Kentucky Cave to College Hill, Nashville—The Saga of a Medical School. Unpublished Manuscript.
7. Catalogue, Medical Department of University of Nashville, 1874.
8. Falk, LA, and Quaynor-Malm, NA: Early Afro-American Education in the United States: The Origins

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FIG. 26, Galloway Memorial Hospital. Now used as office building by Government of Metropolitan Nashville-Davidson County; FIG. 27, Vanderbilt Medical School and Hospital under construction, 1924; FIG. 28, Vanderbilt Medical School and Hospital, about 1930; FIG. 29, Entrance to Vanderbilt Medical School; FIG. 30, Vanderbilt Medical Center, 1973.

TMA EKG of the month

HISTORY

This 28-year-old woman was admitted to St. Thomas

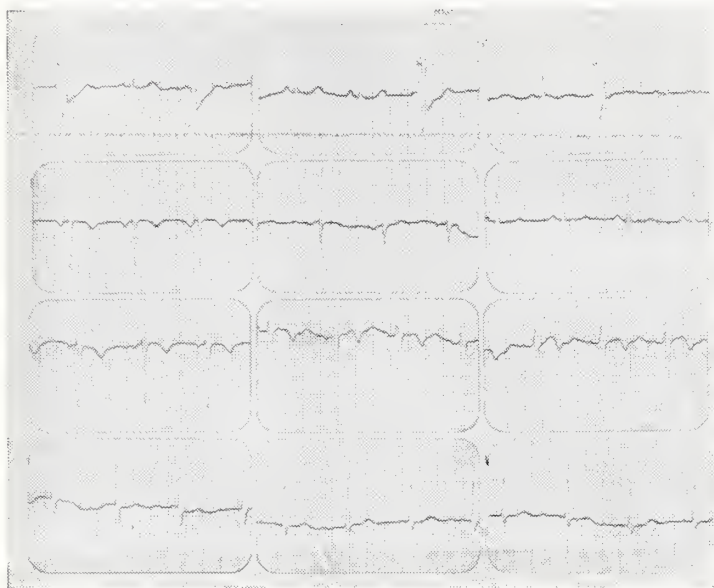


FIG. 1

Discussion:

The electrocardiogram of a normal five-year-old child is illustrated in Figure 2. Note the similarity of precordial T waves to those of the patient. This normal precordial T wave pattern of children gradually changes with age such that discrete T wave inversion as far lateral as V₃ is uncommon by 15 years of age.¹ Occasionally however, for reasons ill defined, the juvenile T wave pattern will persist into young adulthood in the absence of disease. This possibility must be recognized to spare the patient needless diagnostic studies and concern. Sometimes such

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Hospital for repair of a cystocele. She had no history of heart disease. Physical examination and chest x-ray were normal. Her routine preoperative electrocardiogram is illustrated in Figure 1. (Standardization artifacts are seen in leads 1, 2 and 3.) Are the T wave inversions V₁-V₃ normal or should further diagnostic studies be done before surgery? (Fig. 1) (Fig. 2)

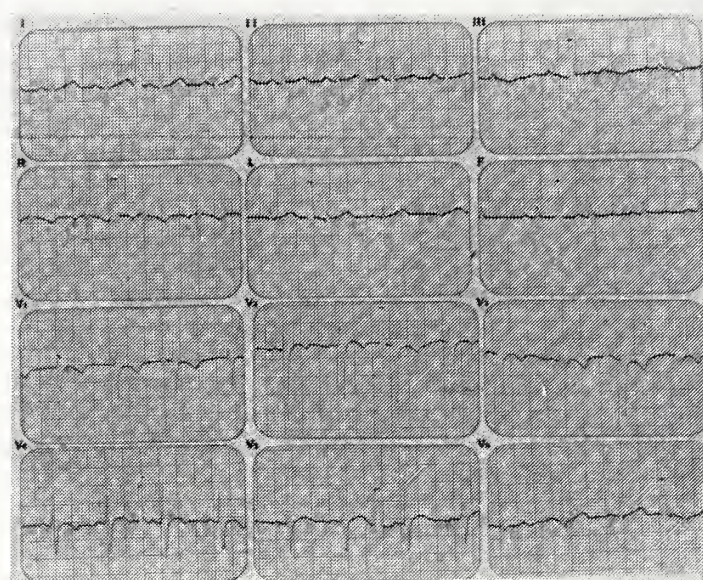


FIG. 2

benign T wave changes are dramatically affected by hyperventilation, atropine, changes in position or by oral potassium salts or glucose. Such maneuvers usually have no effect on T wave changes reflecting organic pathology. No further studies were done in this patient and she tolerated her surgery without difficulty.

Final ECG diagnosis: Persistent juvenile T wave pattern.

HARRY L. PAGE, JR., M.D.
W. BARTON CAMPBELL, M.D.
Co-Directors

REFERENCE

1. Ziegler, RF: "Electrocardiographic Studies in Normal Infants and Children," Charles C. Thomas, Publisher, Springfield, Ill., 1951.

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History . . .

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of Meharry Medical College in the 19th Century. *Proceedings of the Twenty-third International Congress of the History of Medicine*. London, 1972.

9. John C Burch, MD: Personal Communication.

10. Elkin L Rippy, MD: Personal Communication.

11. Mr Emmett Dozier: Personal Communication.

12. Justi, Herman: *Official History of the Tennessee Centennial Exposition*. Brandon Printing Co., Nashville, 1898.

13. Clayton, WW: *History of Davidson County, Tennessee*. Nashville, 1880.

14. Fifield, JC: *American and Canadian Hospitals*. Midwest Publishing Co., Minneapolis, 1933.

15. Program Catalogue of Nashville Academy of Medicine and Davidson County Medical Society, August 1947-June 1948.

16. Records of Metropolitan Bordeaux Hospital.

17. Robert L McCracken, MD: Personal Communication.

18. Report of the Board of Health of the City of Nashville. Tavel, Eastman and Howell, Nashville, 1877.

clinicopathologic conference

Pulmonary Actinomycosis

Present Illness: This 62-year-old black male farmer was admitted to this hospital with a chief complaint of a paroxysm of coughing, associated with syncope. A few hours prior to admission, he experienced an episode of hard coughing which was accompanied by a "black-out spell." He stated that his wife told him that he was unconscious for about an hour. He had no apparent convulsions, biting of his tongue, or incontinence. There was no previous history of such an episode. During the three-month period prior to admission, he had lost approximately 17 pounds. During this time, he had a cough which he stated was productive of white sputum and was occasionally blood streaked. There was no fever, night sweats, chest pain or wheezing. He denied shortness of breath or palpitation. For three months, he had been undergoing treatment by his local physician for high blood pressure. He had a recent chest x-ray made before he came to this hospital, which was reported to show a cavitary lesion in the left hilar area. He stated that he had no previous film in at least ten years. There was no known exposure to tuberculosis, other than a step-sister about twenty years ago who had tuberculosis. He smoked cigarettes very little, stating that he smoked only while in the service during World War II, never more than a package a day. The patient, however, did use snuff. He had been in this hospital and in another VA Hospital for a prosthesis of the left hip. The first operation was done 18 years ago, and the last 10 years ago.

Physical Examination: Temperature 98.0°, pulse 74, respiration 20, blood pressure 104/70. The patient was a very thin Negro male who had obviously lost weight recently. He was alert and cooperative and in no acute distress. He coughed during the examination and though he stated the sputum was white, it was grossly purulent, but contained no blood. EENT examination was negative. There was a mild increase in the AP diameter of the chest, with expansion limited bilaterally. The lungs were resonant to percussion. There was some prolongation of expiration with fine moist rales in the lower half of the left lung field posteriorly. No friction rubs were heard. The heart was not enlarged. No thrills or murmurs were heard. The abdomen was not remarkable. On rectal examination, no masses were felt, and the prostate was of normal size. There was mild pain on straight leg raising in the left hip. The neurological examination was within normal limits.

X-Ray: PA, lateral and both obliques—the heart was not enlarged. There was an infiltrate in the midlung field near the hilum on the left with an area of lucency above the major portion of the infiltrate, but incorporated within it. This was in the superior segment of the left lower lobe. The right lung was clear. Metastatic

survey—examination of multiple bones revealed no evidence of lytic or blastic metastasis. There were marked degenerative changes about the right femoral head and acetabulum. A prosthesis was present on the left side. No other abnormalities were identified. Bronchogram—the study was not diagnostic, due to lack of coating of the bronchial tree.

Laboratory Data: On admission, the white blood count was 3400, with 56 neutrophils, 30 lymphocytes, 10 monocytes and 4 eosinophils. The corrected sedimentation rate was 29 mm, hematocrit 34, hemoglobin 11.4 gm, STS negative, urea nitrogen 21 mg%, glucose 86 mg%, cholesterol 194 mg%, alkaline phosphatase 12.9 King-Armstrong units, SGOT 10 units, LDH 240 units. Calcium 10.4 mg%, phosphorus 2.2 mg%. Urine analysis—reaction 6.0, specific gravity 1.018, albumin and sugar negative; microscopic—occasional white blood cell and red blood cell. The urine was negative for Bence Jones protein. A fresh sputum for culture showed Alpha streptococcus, a few colonies of a Neisseria species, and a Klebsiella species. Multiple cultures of sputum and of bronchial washings were negative for acid fast bacilli. Cultures of the urine were also negative for acid fast bacilli. A culture of sputum and of bronchial washings was negative for fungi. Many sputa were submitted for Cytology studies, and no malignant cells were identified. Fungus serology was negative. Diagnostic skin testing revealed a 20 mm reaction at 48 hours with intermediate PPD, histoplasmin skin test revealed 3mm of induration.

Hospital Course: Except for minor fluctuations in temperature up to 99°, the patient remained afebrile throughout his hospital course. He was treated with Ampicillin and Keflin and general supportive measures. The cavitary area in his left upper lung decreased in size, but the infiltrate remained stationary. An exploratory thoracotomy was suggested, but he refused surgery. Three months after admission, he was discharged to return and be followed in the Outpatient Department. One month later, he was seen in the Thoracic Surgery Clinic, and had changed his mind about surgery. He was readmitted to the hospital, and four days later an exploratory thoracotomy was performed.

CLINICAL DISCUSSION

DR. J. R. PRATHER: Dr. Ettman, do you have any further comments on the x-ray films?

DR. IRVING K. ETTMAN: Our first film showed a large, nodular density with a radiolucency in the upper portion. On the oblique views, we saw this situated in the region of the superior segment of the lower lobe. A month or so later, we saw this density again, and it looked smaller than it did originally. A planagram showed the nodular density with the radiolucency. In addition, there was within this cavity a smaller radiolucency which could represent a mass such as a fungus ball. A film taken three months later showed the radiolucency is no longer visualized, but we still have a large nodular infiltration

From the Surgical Service and Laboratory Service of Veterans Administration Hospital, Memphis, Tenn.

which has not changed much in size since the earlier examination.

DR. PRATHER: When you say "radiolucency like a fungus ball," could this also be multiple little small abscesses within the consolidation?

DR. ETTMAN: It could be at the end of a bronchus because of the location.

DR. PRATHER: How often have you seen a bronchogenic carcinoma cavitate like this and then the cavity resolves, leaving you an infiltrative mass?

DR. ETTMAN: We may see cavitation from tumor necrosis or bronchial obstruction and abscess formation.

DR. PRATHER: Yes, but once the cavity is formed from a bronchogenic carcinoma, how often have you seen this cavity totally resolve itself? If it is from a blocked bronchus, usually it stays blocked and usually the cavity enlarges, wouldn't you agree?

DR. ETTMAN: Yes, without treatment it will. With radiation perhaps we can reduce the obstruction and open the bronchus.

DR. PRATHER: No, I'm talking about untreated cases.

DR. ETTMAN: In untreated cases it is very unusual.

DR. PRATHER: So, if this is a bronchogenic carcinoma, it would be quite unusual for the cavity to resolve itself, leaving just the mass of bronchogenic tumor tissue in there.

DR. ETTMAN: Right.

DR. PRATHER: In essence we have a patient with nonspecific pulmonary symptoms who had an x-ray that revealed a cavitary lesion in his left midlung field. Obviously, when you see such a patient, the first thing you need to think about is an abscess of the lung, probably due to mixed bacterial infection. At first, this was uppermost in my mind because frequently these will occur due to aspiration in people who black out or those who use too much alcohol. They will frequently be admitted with abscesses in the lung. Now, where these occur depends on the position of the patient when the aspiration occurs. If a patient was supine, the abscess is often in the superior segments of the left lung. About 60 to 75% of lung abscesses will be in the right lung since the right main bronchus has a more direct course than the left, which takes off at more angulation.

Now I thought that possibly with the black-out spells, he may have aspirated. Yet, we have the history that the man had been followed by his

doctor, who also found a cavity lesion. Now the presence of esophageal diverticula, cardiospasm, esophageal reflux, or some congenital problems like a tracheoesophageal fistula can be predisposing factors for lung abscesses. Less frequent causes are, of course, pneumonitis which becomes localized, pulmonary embolus, and bronchogenic cysts which become infected. You can have abscesses within the pulmonary structure due to infection from adjacent structures, like perforated esophagus or erosion of a subphrenic abscess.

The pathology in these lung abscesses is really no different from infections anywhere in the body. The area becomes necrotic and this material is then evacuated after erosion into a bronchus. Then, over several weeks, this area of cavitation is gradually replaced by fibrosis if it resolves. Occasionally, it will not fibrose and remains as a thick walled cavity.

Now, what are the symptoms? They are non-specific—mainly cough, fever and malaise. The patients usually will have a productive cough that can be purulent, bloody, and foul smelling. On x-ray, you usually find an irregular lining to the cavity, which of course, this patient has.

The etiology may vary. One possibility is tuberculosis. This usually starts from an area of pneumonitis. It usually takes one of three courses. The infection can resolve, leaving no changes on x-ray; you can have organization of multiple areas of involvement of tuberculosis with fibrosis taking its place; or you can have areas of caseous necrosis which may cavitate.

Other organisms can cause a similar picture. These include the fungus infections. Probably the most common such lesion seen in this area is histoplasmosis. The majority of the patients who do have histoplasmosis are asymptomatic. The sick ones may have a history of working around chicken houses, or turkey roosts, or pigeon lofts, which this patient did not have, other than the fact that he did work on a farm. The symptoms are again nonspecific; fever, night sweats, cough and fatigue may be the only early symptomatology that these cases will have. The symptoms will often subside in two to three weeks, either to come back as a generalized infection or a lung infection. Again, the x-ray picture is quite nonspecific. It can be a diffuse pulmonary infiltrate. It may be a solitary lung lesion which can be solid or cavitary.

Another fungus which must be considered, which is quite rare in this section of the country,

is coccidioidomycosis. These cases are mainly seen in the San Joaquin valley of California and the southwest. They have a seasonal incidence, mainly in the summer and fall. This is due to the fact that the fungus is found in the soil, and these seasons are the planting times in those areas. Again, the lesions are quite similar to tuberculosis and show early caseation. In seventy-five percent of the cases, there are no symptoms. The ones who do get sick have nonspecific symptoms. The solid lesions may cavitate, and typically these lesions, when they do cavitate, have a very thin wall and they almost look like a cyst on x-ray. Another granulomatous fungal disease, of course, is blastomycosis. It is typically generalized, but can localize and also can caseate, but caseation is quite uncommon.

The most logical diagnosis here in an individual who is 62 years of age is bronchogenic carcinoma. It would be unusual for the cavity to disappear by x-ray, although the appearance of this cavity on x-ray resembles the irregular lining seen in carcinoma. The most common type of bronchogenic carcinoma is the epidermoid carcinoma which will frequently outgrow its blood supply and cavitate, leaving a necrotic area in the center with the tumor forming a thick wall.

Another cause could be actinomycosis of the lung, but it would be very rare for actinomycosis to present as a cavitory lesion. Usually, these cases will present as infiltrates. I recognize this case as one of actinomycosis since I have recently reviewed all of our cases. Out of the total of 24 cases, 15 were thoracic lesions. Now, this is quite unusual, since the literature says that the thoracic form occurs in 15%, but we have well over 60% in the chest. These cases present in one of three ways. The infection can be confined to the chest wall. We saw this in two of our patients. You can have chest wall and lung involvement, and this was seen in five. The usual way it presents is by involving the lung only. The bronchopulmonary type, which is nothing but a pulmonary infiltrate, was seen in six of our cases, with the pleuro-pulmonary type with empyema seen in two of these cases.

A patient can have a multitude of symptoms with actinomycosis, the commonest being pain, which was seen in 12 of these patients, and I presume that this is due to the marked inflammatory reaction that is associated with this disease. Hemoptysis was seen in six of these patients, and this is seen mainly in the cases with pulmonary involvement only. The physical find-

ings are very nonspecific, temperature elevation being the commonest finding.

In the 15 cases of thoracic actinomycosis that we have seen, anaerobic cultures were made in seven of the patients, and were positive in three. We have used surgery quite extensively in these patients with thoracic actinomycosis, often because the diagnosis is quite difficult to make. After reviewing the literature and from our own experience, we feel that we can often shorten the course of the disease by surgery. It is difficult for antibiotics to penetrate the dense scarred masses, so surgery removes most of these, but must be followed by standard antibiotic therapy.

DR. R. D. GOURLEY: Thank you, Dr. Prather. It is interesting that this case was prepared about a year and a half ago, and tentatively assigned to Dr. Prather at that time. We had no way of knowing that when the time would arrive for him to discuss it, he would have just finished reviewing all of our cases of actinomycosis. We do appreciate the very excellent discussion of our experience here with actinomycosis.

We received surgically a segment of the left upper lobe, and at that time, there was still a residual cavity present which measured 2 cm. in diameter. The cavity wall was composed of dense granulation tissue and dense fibrous tissue heavily infiltrated with both acute and chronic inflammatory cells. It was almost like the type of cavity that you would see in a lung abscess from some mixed infection. The contents of this cavity, however, showed multiple fine filaments running through material which at first glance looked like necrotic debris. We found typical colonies of actinomycosis composed of tangled masses of mycelia. These were the so-called "sulfur granules." They may be yellow, they may be grey, or they may be white. The cavity did communicate with a bronchus. The broncho-cavitory junction showed squamous metaplasia, but the cavity was lined by granulation tissue with a heavy, nonspecific inflammatory infiltrate in the wall.

DR. ETTMAN: Would a needle biopsy of the lung have been worthwhile here or would the risk of draining sinus have been present?

DR. PRATHER: I think the risk is quite strong. The case where we did a right upper lobectomy developed a bronchopleural fistula.

DR. GRIFFIN: I'm not aware after having recently reviewed the lung biopsy literature, that

continued on page 312

This newborn male was the 5 lb., 2 oz. product of an estimated 34 weeks gestation. Pregnancy was reported to be uncomplicated by maternal illness. Medications taken by the mother included aspirin, vitamins, iron and "anti-nausea pills."

Because of third trimester bleeding secondary to

placenta previa with abruptio, delivery was by way of emergency cesarean section. The one-minute apgar was 2, and the infant required resuscitation and intubation at 2 minutes. Respiratory distress, hypovolemia, and a large sacrococcygeal mass prompted transfer of the infant from a local hospital to the Vanderbilt University Hospital neonatology unit. On physical examination the large mass was noted to be cystic and to transmit light.

Admission chest X-rays revealed findings of severe hyaline membrane disease. AP and Lateral abdominal radiographs are illustrated in Figures 1 and 2, the latter of which was taken during injection of water-soluble contrast material through a rectal catheter.

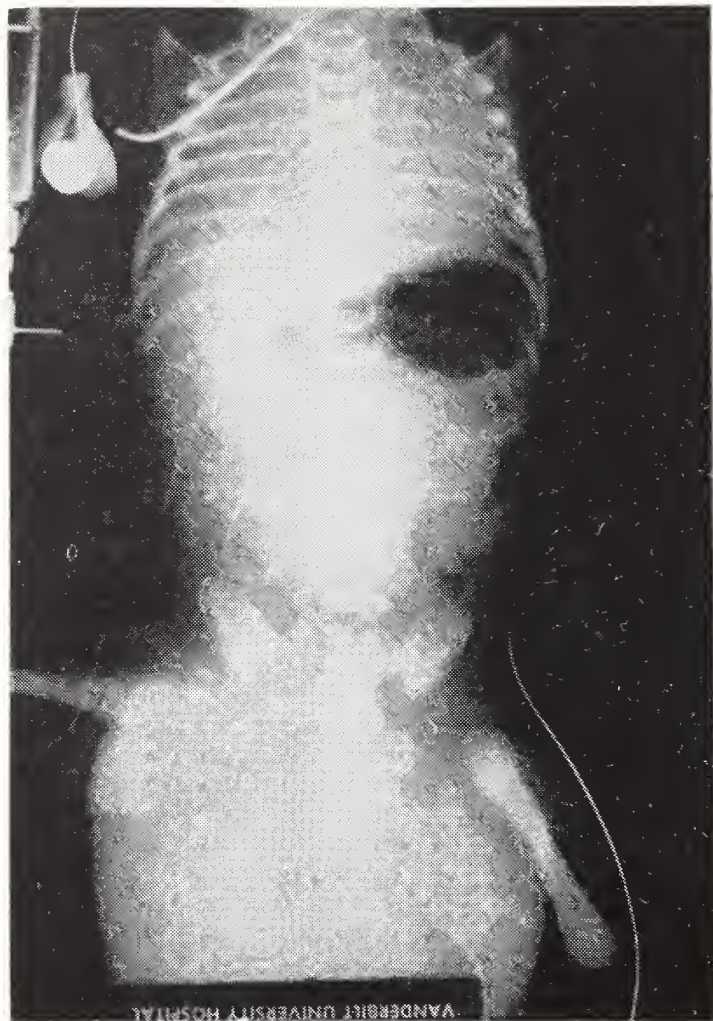


FIG. 1

Radiographic Findings:

The plain film of the abdomen (Figure 1) shows a large pelvic mass displacing gas-filled loops of bowel superiorly. In addition, a large extension of the mass is seen to present inferiorly. This extrinsic portion of the pelvic tumor is better illustrated on the lateral examination (Figure 2), which also demonstrates areas of irregular, plaque-like calcification within the mass. In order to identify the position of the rectum and the intrinsic component of the mass, dilute water-soluble contrast material has been

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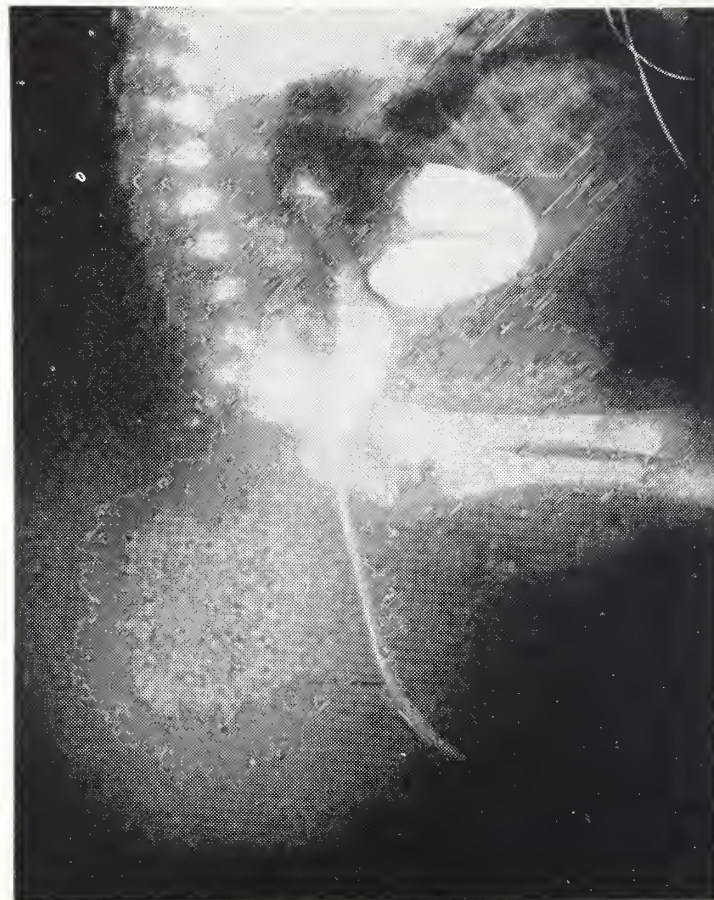


FIG. 2

injected through a small catheter. This study demonstrates anterior displacement of the rectosigmoid and establishes the mass to be presacral and sacrococcygeal in location. No anomaly, destruction, or erosion of the sacrum can be identified. Incidental note is made of absence or lack of ossification of the pubic rami and severe pulmonary changes of hyaline membrane disease.

Differential Diagnosis:

The classification of presacral masses is extensive.¹ Primary considerations include the following:

- * 1. Chordoma.
- * 2. Teratoma.
- 3. Anterior meningocele.
- * 4. Neuroblastoma and other neurogenic tumors.
- * 5. Dermoid cyst.

- * 6. Asymmetric conjoined twin malformations.
- * 7. Hamartoma.
- 8. Inflammatory lesions.
- * 9. Osteocartilaginous tumors.
- 10. Miscellaneous mesenchymal soft tissue tumors.
- * Potential for calcification or ossification.

Hospital Course:

The patient's hospital course was complicated by prematurity, respiratory distress requiring respirator and oxygen, hyperbilirubinemia, sepsis, consumptive coagulopathy, and urinary retention. The previously described pelvic mass was surgically removed on the 17th hospital day.

Pathological Diagnosis:

At surgery a 13 x 9 x 6.5 cm, cystic mass weighing 395 gms was removed. The final pathological diagnosis was sacrococcygeal teratoma, benign.

Discussion:

By far the most common of the sacrococcygeal masses, in all age groups, is chordoma.² Chordomas are, however, decidedly uncommon in children, especially the neonate, and the average age of presentation of these notochordal-derived neoplasms is 49 years.³ In addition, these tumors usually cause some destruction of the adjacent sacrum and coccyx.

The most frequently encountered presacral masses in the pediatric age group are sacrococcygeal teratomas^{1,4,5,6} which are tumors derived from all three germinal layers. They may be located entirely within the pelvic cavity, entirely external to the pelvic cavity, or a combination of both.⁶ Almost all of these tumors have an intrinsic component which may be attached to the sacrum or coccyx. The age of presentation of these masses and the timing of surgical excision provide a good indication of their ultimate behavior with approximately 90% presenting at birth being benign, and approximately 92% presenting after three months being malignant.⁶

Radiographically, on the lateral view, sacrococcygeal teratomas present as soft tissue masses which displace the pelvic organs anteriorly, and which may cause some degree of bladder obstruction and retention.⁵ On the frontal view, the rectum often appears narrowed and elongated by the mass. The barium enema is a useful technique in assessing the degree of intrinsic component of these masses. The sacrum and coccyx usually show no evidence of bony destruction or erosion.⁷ Indeed, destructive lesions

or aplasia of more than two sacral segments is against the diagnosis of sacrococcygeal teratoma.⁷ Calcifications are characteristically irregular and plaque-like and are reported in these neoplasms in up to 60%.^{1,6,7}

Asymmetric conjoined twin malformation is differentiated from teratomas by possession of differentiated organs such as limbs, spinal axis, true organs or body regions.⁵

Another entity to be considered in the pediatric age group is anterior meningocele which "represents herniation of the meninges through a defect in the sacrum."¹ These masses are usually not calcified and are accompanied by bony changes such as enlargement of the sacral foramina or smooth, crescentic erosions of the lateral sacrum, in at least 75% of the cases.⁸ The diagnosis of these lesions is confirmed by myelography.

Of the neurogenic lesions, neuroblastomas are perhaps the most common in the infant and small child. These are, however, relatively uncommon in the presacral location. The sacral region contributes 3-5% of neuroblastomas in all age groups and 12.5% of these presenting in the neonatal period.⁵ A clue to radiographic distinction from teratoma is the type of calcification, diffuse and punctate in neuroblastoma, irregular and plaque-like in teratoma.

Inflammatory lesions of the presacral space are frequently identified by their clinical presentation. Likewise, the diagnosis of osteocartilaginous tumors should be facilitated by their characteristic bony changes. The latter lesions are, again, not commonly seen in newborns and young children.

Other lesions which may be found in children are dermoids² and other retrorectal cysts of developmental origin.⁹ Radiographically, these presacral masses are without calcification and cause no destruction of sacrum or coccyx.⁹ Infection is a common accompaniment.^{2,9} These lesions and other retroperitoneal presacral tumors including the mesenchymal types, although rare in children, may mimic the more common sacrococcygeal teratoma by their displacement of pelvic organs.

SANDRA G. KIRSCHNER, M.D.
YING T. LEE, M.D.

REFERENCES

1. Werner, JL, Taybi, H: Presacral Masses in Childhood. *Amer J Roentgen*, 109:403-10, 1970.
2. Mayo, CW, Baker, GS, Smith, LR: Presacral Tumors: Differential Diagnosis and Report of Case. *Proc Staff Meet, Mayo Clinic*, 28:616-22, 1953.

3. Montgomery, AH, Wolman, JJ: Sacrococcygeal Chordoma in Children. *Amer J Dis Child*, 46:1263-81, 1933.
4. Gwinn, JL, Docherty, MD, Kennedy, RLJ: Presacral Teratomas in Infancy and Childhood. *Pediatrics*, 16:239-49, 1955.
5. Macpherson, RI, Young, G: Sacrococcygeal Tumors. *J Can Assoc Radiol*, 21:132-42, 1970.
6. Donnellan, WA, Swenson, O: Benign and Malignant

Sacrococcygeal Teratomas. *Surgery*, 64:834-46, 1968.

7. Eklöf, O: Roentgenologic Findings in Sacrococcygeal Teratoma. *Acta Radiol*, 3:41-48, 1965.

8. Amacher, AL, Drake, GG, McLachlin, AD: Anterior Sacral Meningocele. *Surg, Gynec and Obst.*, 126: 986-94, 1968.

9. Campbell, WL, Wolff, M: Rectorectal Cysts of Developmental Origin. *Amer J Roentgen*, 117:307-13, 1973.

* * *

CPC . . .

continued from page 309

actinomycosis has been diagnosed this way. I would advise against needle biopsy here.

DR. PRATHER: If this were a bronchogenic carcinoma, needle biopsy would not be indicated.

I think this case would have been amenable to surgical excision without getting into the tumor. Needle biopsy could bring cells all the way out through the pleura and into muscle or the chest wall.

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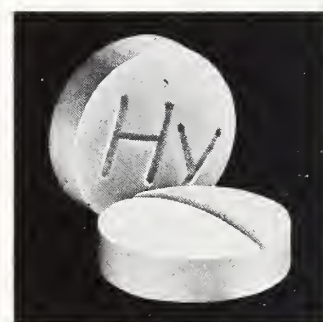
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Carcinoembryonic Antigen II

Much has been published regarding the results of CEA testing in a variety of disorders, both neoplastic and non-neoplastic, and only a few superficial aspects of interpretation can be discussed here. The value of this test relates to its use as one specific technique in an armamentarium of diagnostic tests, and as an adjunctive parameter in patient management. By itself, it should not be considered a "screening test" for the presence of malignant disease because it lacks both sufficient sensitivity and specificity for this purpose.

Diagnostically, to quote the literature from Roche Clinical Laboratories, "CEA titers are not an absolute test for malignancy, nor for a specific type of malignancy. . . . CEA titers less than 2.5 ng/ml are not proof of the absence of malignant disease." Experience so far would indicate that levels of 20 ng/ml or higher are only seen in malignant disease; however below this level non-malignant conditions make up a considerable proportion of those patients having elevated values, particularly in the "gray zone" of 2.5-5 ng/ml. Many of these non-malignant disorders have a significant relationship to the development of neoplasia, such as smoking-related bronchitis and emphysema, chronic ulcerative colitis, and colorectal polyps, thus introducing another aspect of CEA testing, namely the desirability of sequential plasma determinations.

In the healing or quiescent stages of inflammatory or non-malignant conditions the CEA level will usually drop to normal or only slightly elevated levels; thus an upward and sustained trend during apparent clinical remission should suggest the possibility of a developing malignancy. While for colorectal cancer the percentages of patients with elevated CEA levels increases as the extent of disease increases both locally and with distant metastases, this relationship may not necessarily be true for some other neoplasms, such as lung carcinoma. Normal CEA levels have been recorded in approximately 10% of patients with metastatic colon cancer; more disturbing,

however, is the fact that 30-40% of patients with resectable lesions may fail to show elevated levels. This fact serves to emphasize the need for other techniques in the diagnosis of colorectal cancer and the significant possible error of CEA when used to "screen" for the presence of this neoplasm. Indications are that the combined use of proctosigmoidoscopy, barium enema, and CEA determination may in fact result in the detection of virtually 100% of all colorectal carcinomas.

In a patient with proven colorectal cancer, a normal plasma level of CEA is generally good evidence against the possibility of metastatic disease. Following surgical removal of an apparently resectable lesion in a patient with elevated CEA levels, this test should return to normal in 1-3 months. Persistently elevated titers suggest the presence of residual disease, but normal levels do not exclude the possibility of an incomplete resection. A subsequent return of CEA to elevated values indicate recurrent disease, and may be recorded several weeks before such recurrence may be detected by other diagnostic clinical or laboratory methods. Similarly, following effective chemotherapy normal CEA levels may be achieved, rising to abnormal levels again with relapse and an increase in tumor mass. Failure to attain normal CEA levels with a given chemotherapeutic regimen indicates ineffectiveness, and the CEA test thus may serve as a guide in the proper selection of a particular such agent or agents.

While most of the investigative studies along these lines have been concerned with colorectal neoplasms, the results may be equally applicable to other tumors, although this has yet to be proven. Also, because varying percentages of patients with elevated CEA levels are seen with different tumors, and the relationship between CEA levels and extent of disease is not necessarily direct in all types of malignant neoplasms, further studies must be forthcoming before these applications of the CEA test can be considered generally valid in the diagnosis and management of cancer.

From the Department of Pathology, Methodist Hospital, Memphis, Tenn.

DEAN G. TAYLOR, M.D.

Blood Levels of Free and Bound Thyroid Hormones

The laboratory evaluation of thyroid disease has progressed so rapidly in the last few years that most of our time honored blood tests of thyroid function are outdated. These older tests (PBI, BEI, T_3 resin uptake), while the best that were available at one time, are now about as valuable in assessing thyroid disease as the cephalin flocculation test is in assessing hepatitis, as the icterus index is in assessing jaundice, or as the albumin/globulin ratio is in assessing myeloma.

The PBI is not a direct measurement of thyroid hormone but instead is a measure of blood iodide. This includes iodine in thyroid hormones (iodothyronines), iodothyrosines, abnormal iodo-proteins, and free iodine. Beside failing to differentiate hormonal from non-hormonal iodine in the blood, the PBI also fails to differentiate between the two forms of thyroid hormone (triiodothyronine and tetraiodothyronine) and fails to differentiate between the protein bound thyroid hormones and free or unbound thyroid hormones. Needless to say, the PBI is frequently misleading in the evaluation of thyroid disease.

The T_3 resin uptake, or T_3 resin binding test, has come to be known as the T_3 test. As such it is a misnomer since it has nothing to do with the measurement of T_3 levels in blood. Instead, radioactive triiodothyronine, added exogenously to a serum sample, is used to qualitatively measure the relative amount of unbound protein binding sites that would bind this labelled T_3 . Although this measurement of unbound binding sites with T_3 is a crudely qualitative measure of total thyroid binding sites, it is not standardized according to the TBG content and therefore is not a quantitative measure of thyroid binding globulin. It of course does not measure T_3 levels.

When the T_3 is determined by radioimmunoassay, and the T_4 and TBG are determined by competitive protein binding analysis, then a simple mathematical calculation allows one to

determine the Free T_4 index and Free T_3 index. These indices bear an excellent correlation with other methods of determining these unbound hormone levels.

In our laboratory during the last eight months we have been evaluating these levels of free hormones and have found excellent separation of hyperthyroid, euthyroid, and hypothyroid patients. Furthermore, those patients on estrogens were clearly separable by virtue of their elevated T_4 , and TBG with normal Free T_4 indices and Free T_3 indices. In addition, 20% of our hyperthyroid patients had T_3 toxicosis (i.e., Free T_4 was normal in the face of an elevated T_3 and Free T_3). Also, 80% of our hyperthyroid patients had elevations of both their T_3 and T_4 levels and Free T_3 and Free T_4 . Most of these cases showed greater relative elevation of T_3 levels than T_4 levels. No case of pure T_4 toxicosis was appreciated. These results are consistent with recently reported data.¹

Two patients receiving synthroid had very low T_3 levels but normal T_4 and TBG levels. Patients on cytomel who were euthyroid showed elevated T_3 and Free T_3 levels but normal T_4 and Free T_4 levels. Two patients of propylthiouracil showed very low T_3 levels. The differing levels of T_3 and T_4 after administration of various drugs needs to be evaluated more fully.

A number of questions about the effect of thyroid hormones on the metabolism of Calcium, Potassium, and Vitamin B₁₂ can now be investigated more easily. Questions of relative T_3 and T_4 effects on Central Nervous System metabolism, liver, and myocardial metabolism may now be more easily investigated. We may even find cases of hyperthyroidism that are pure T_4 toxicosis and cases of hypothyroidism that are caused by a block in the conversion of T_4 to T_3 . Perhaps this greater sophistication in the evaluation of thyroid testing will lead to a greater sophistication in the therapy of thyroid disease.

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REFERENCE

1. *Acta Endocrinologica Suppl*, 173:17, 1973.



from the tennessee department of public health

Rural Primary Health Care

One of the major gaps in the health care delivery system of this state has been the inaccessibility of primary health care for our non-urban citizens. It is a familiar problem to those charged with the task of providing adequate health care to all Tennesseans. Statistics, such as 1972 data showing that more than 62 percent of this state's practicing physicians are located in the four metropolitan areas, providing a strong empirical basis for concern. But the problem obviously goes beyond statistics, for no set of figures can fully reflect the impact in human terms.

Efforts in the past to reverse the flight of health manpower, especially physicians, from the rural communities to the cities produced disappointing results. One effort, the Federal Hill-Burton Program, provided for the construction of hospitals and nursing homes primarily in non-urban communities along the logic that shiny new facilities would attract and hold health manpower. Unfortunately, this plan did not work. Today many such facilities are either empty or underutilized. Attempts to attract physicians to our rural areas through Federal programs, such as the National Health Service Corps and MEDHHC, also produced disappointing results.

The basic problem has remained: the need for primary care at the rural level. Recent studies, such as the Willard Report, suggested that a new rural health care delivery system design would be necessary to deal with the situation. A system of primary care centers, located in the rural areas they seek to serve, was proposed.

This plan, which eventually came to be called the Tennessee Primary Care Act of 1973, authorized the Department of Public Health to establish a number of demonstration primary care centers in non-metropolitan areas of the state. The stated intent of the Act was to "demonstrate new and more effective ways of providing health care in smaller communities of the state; to assist in achieving a better distribution of health care personnel into non-metropolitan areas where shortages exist; to provide educational opportunities to medical and other students in the health professions; and to

provide access points to patients for the delivery of primary health care services."

Basically, this primary health care program is to provide those services that most people use most of the time for most of their health problems. Specifically, it provides the individual with an entry point into the health care system.

The Department of Public Health has moved ahead to implement this program. A goal was set to establish four primary care centers in various sections of the state during the current fiscal year—two such centers are now operational.

Many communities initiated requests for the establishment of a primary care center. All applications were (and will be) judged on the basis of need, availability of supportive services, and the probability of achieving a major improvement in the local health care system. A "management structure" had to be established to provide administrative support to the center before funding was initiated. In fact, one special feature of the Primary Care Center Act is the legislative requirement for participation of the various health elements of the community in the development of health care systems involving primary care centers. Local medical societies and area-wide comprehensive health planning agencies are required to certify to the Department that a primary care center is actually needed.

Criteria considered by the Department's primary care staff are: the available health resources (manpower and facilities); accessibility of health care to population; health status indicators (morbidity and mortality); and, socioeconomic/demographic/environmental factors.

Included in every primary care center are supportive services. Some of these serve the patients directly, but supplemental services, such as X-ray, laboratory, pharmacy accounts, medical records, etc., are all considered an integral part of the organized primary care program.

As noted, this system is structured to provide the services most people use most of the time. There are, of course, limitations inherent in such a definition. The patient is normally ambulatory, for instance. But the centers offer un-

limited potential in that they serve as an access point that allows entry into the health care system. Thus, while the primary care centers may not provide the full and sophisticated range of health services currently available, they will serve as an entry point and continuity mechanism, with the potential for becoming the pivotal factor in a total health delivery service.

One common misconception concerning the Primary Care Program is that it is a "giveaway" scheme, offering free medical care in competition with area physicians. This criticism is unfounded. All patients are asked to pay toward the cost of the service; even those of limited means are asked to make some contribution. The Department works in cooperation with local medical societies in order to avoid conflicts of this nature.

At this juncture, it might be useful to give an idea of how the program functions in the field. As previously stated, two demonstration centers are currently in operation. One, located in the First Tennessee Region, is headquartered in Greeneville and serves Greene, Hawkins and Hancock Counties. That operation is proceeding smoothly and is indicative of what can be accomplished with the primary care concept. The other center is located in Moore County, in the town of Lynchburg. The Moore County center is an interesting example of what one community, working in cooperation with the regional health offices and the Department of Public Health, can accomplish.

Moore County, located in the South Central Region, is the smallest county in the state with a total population of approximately 3,500. Lynchburg, with a population of less than 1,000, serves as the county seat. Lynchburg has no hospital, only one physician (of advancing years, who has chosen a declining work-load), and is located miles from a comprehensive health care facility.

The people of Moore County were concerned with this situation. Committees were formed to seek a means of alleviating the shortage of primary medical care opportunities in their community.

When the Tennessee Primary Care Act became law, the people of Moore County requested that they be considered as a site for one of the demonstration primary care centers. After careful consideration of this request, the Department decided to move forward and establish a center in Lynchburg.

It is important to emphasize the spirit of cooperation encountered in the establishment of

the center in Lynchburg. The Department of Public Health, working through its regional office, had the full cooperation of the Moore County community. Resource committees were formed, area physicians were consulted, and efforts were made to explain the concept of the primary care center through the local media. The results were gratifying. The community pitched in and lent valuable support; for instance, the Lion's Club devoted time toward refurbishing a structure selected for the center's headquarters; the local 4-H Club obtained a \$250 good citizenship award from the *Reader's Digest* to put toward paint and supplies; and the Lynchburg Ladies' Handiwork Store has decided to donate 10 percent of all earnings toward the maintenance of the facility. Clearly, this is the kind of local support hoped for when the Department asked that communities requesting a center show "a probability of achieving a major improvement in the local health system."

Critical to the success of these centers is the cooperation of the state's medical teaching facilities. A major consideration implementing the primary care center concept concerns the utilization of medical personnel, including advanced students, at this state's medical institutions. In Moore County, for instance, an agreement has been reached with Vanderbilt University which provides some of the manpower vital to the center.

Another important aspect involves the utilization of Federal projects, such as the National Health Service Corps and the MEDIHC Program, in an effort to supplement state commitments. The National Health Service Corps, designed for recruitment of physicians into rural areas, could provide needed support in staffing the centers. The veteran-oriented MEDIHC Program, in turn, could provide personnel in the allied health professions. The Department is working with various Federal agencies in order to derive the maximum benefit from these projects for the state.

The Moore County center opened to the public on March 11 of this year on a limited basis. A nurse practitioner is available two days a week, and a family practice physician is available one day a week. These people (provided in cooperation with Vanderbilt) form the nucleus of the Primary Medical Care Team.

In addition, there is a Nursing Care Team, members of which can include the following: registered nurse, public health nurse, licensed

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Hypertension Management

Present figures show that of the approximately 20 million people with high blood pressure, 80% are mild to moderate essential hypertensives that could be easily controlled if brought under the care of the health team.¹ The V.A.² and Framingham studies³ give scientific proof that control of elevated blood pressure results in a significant decrease in cardiovascular complications. The Atlanta High Blood Pressure Screening Program has emphasized the need for an effective method of control and follow-up. A group of hypertensive patients (88 subjects), when first surveyed in 1964, showed only 25% receiving medications with 15% having good blood pressure control (average diastolic 95 mm Hg or lower). The use of home follow-up by the public health nurse with referral to a physician, education about the nature of hypertension, and reminders to patients to take their medication, altered these figures to 86% treated with 80% having good control. The nurse visits ended in 1966 and the subjects were left to their own devices until 1968 when re-evaluation showed that only 55% remained under treatment with 29% having good control as evidenced by their blood pressure taken at home.⁴

In the last two years, the medical and allied health professions have placed more emphasis on new developments, new drugs and new techniques in the treatment of hypertension. The National Heart and Lung Institute has organized an all-out effort in the field of hypertension with emphasis on professional and patient education. The patient remains the most important factor in long term control. Today's patients are quite sophisticated about medical care and patient education has become a keystone in effective management techniques. A study done by Finnerty, *et al*⁵ involving an analysis of hypertensive clinic drop-outs showed that those patients lost to follow-up were intelligent, concerned patients who lost their motivation because the medical care they received did not answer their individual needs.

The attitude of the physician himself toward hypertension in general, and specifically toward

his patient's hypertension is important. The use of visual aids will save the physician time and still enable him to express his interest and concern in the patient's education. For example, he could mimeograph certain key points such as: 1) Hypertension is the major cause of arteriosclerosis and its complications: heart disease, stroke, loss of vision, and kidney failure. 2) People with hypertension frequently do not "feel bad" until permanent damage is done. 3) Only one person in every five with hypertension can be cured. 4) Hypertension is a lifelong problem, requiring lifelong treatment and care. 5) Medication will work only if taken regularly to control hypertension. 6) Sodium restriction is the first line of treatment for hypertension, and must be followed for medications to work effectively. 7) Regular visits for professional observation is essential for control of blood pressure.

These instructions should be supplemented with reading material of the physician's own design or something already published. Current literature of interest to the patient, diet aides, low sodium and low cholesterol recipes and so on might be supplied to the patient in an attractive display in the waiting room. During the coming year the National High Blood Pressure Council will be actively attempting to educate physicians, health personnel and the public about hypertension. In addition, the information services division of major drug companies are developing material useful in patient education. For example, CIBA Information Service has published for patients a series of pamphlets, tapes and aides that do not contain advertising and which are approved by the National High Blood Pressure Council. Local chapters of The American Heart Association are another good resource. G. D. Searle Co. makes available to patients a booklet entitled "Understanding High Blood Pressure." In the field of audio-visuals, the Patient Counseling Film Program has an excellent audio-visual tape on High Blood Pressure.

Home Blood Pressures

Dr. Freis of the V.A. Hospital in Washington, D.C. believes the use of home blood pressure measurement has a role in the treatment of high blood pressure. It is particularly useful in pa-

From the Hypertension Center, Vanderbilt University Hospital, Nashville, Tenn. 37232.

tients who consistently respond poorly to medication or who have a poor compliance record. He states that "If you base treatment solely on office readings, it's easy to overmedicate the hard to control patient. This in turn steps up your side effects and increases the chances of patient drop-out."⁶ The daily blood pressure recordings are invaluable in allowing the physician to keep medication to a minimum with maximum control; they also serve as a motivational tool.

Drug Compliance

It is important to remember that each patient is an individual and often gives subtle clues to overt problems if health personnel would take the time to listen and purposefully interview the patient. Without access to serum or urine drug assays it is often difficult to assess compliance in a patient with poor or sporadic control. Pill counts, pharmacy checks, blood pressure levels, and, with some drugs, orthostatic effects may be helpful but often non-conclusive. One study using patients whom physicians judged to be "reliable" patients showed that 31% took less than 70% of their medications.⁷ Often a sympathetic approach can gain an admission of non-compliance in a patient. Some suggestions for helping the non-compliant patient might include supplying the patient with a pocket calendar for recording medications or telling him to count out the total day's dose of medicines into a separate container each morning and keep it with him all day.

Medications

It is important to discuss with the patient possible side effects of the drugs and how to cope with them. For instance, patients on guanethidine should be warned of possible orthostatic effects; they should be warned to get out of a hot tub slowly, and to avoid sudden positional changes. With all patients it is important to explain the purpose of the drug and the need for regular, continual medication. The patient should be warned not to take other medicines, particularly cold remedies, laxatives and so forth without first consulting his physician. It is also important to remember that it is less expensive for the patient to buy his medicine in quantity, since each time a prescription is filled a prescription charge is made. If finances are a problem the welfare department is sometimes a valuable resource.

Follow-up

No matter what method is used, support and

follow-up from the physician is a key factor. Caldwell, *et al*⁸ in a study done at Henry Ford Hospital found the following six factors to be influential in patient compliance with a regimen to control blood pressure: 1) good physician-patient relationship; 2) attitude of clinic and paramedical personnel in the clinic setting; 3) dissatisfaction with rotational system which necessitated seeing a different doctor; 4) education of the patient and spouse about the patient's disease and treatment; 5) as applicable, referral to and use of social resources in the community; 6) a systematic method for calling patients in for re-examination and follow-up visits.

An increasing number of physicians in private practice, in health centers, and in medical centers are involving nurses and dietitians in quality health care delivery. If the patient realizes that the physician feels that education about hypertension and adherence to medicines and diet are important to his health he will usually undertake with conviction the process of learning from health personnel. A well-trained nurse can complement physician care by seeing patients at regular, frequent intervals for blood pressure readings. These sessions permit a continuation of the educational process and the development of a one to one relationship between the patient and a health professional, as well as helping to motivate patient interest. The patient could see the physician at these interval visits only if it was felt to be necessary. When a patient misses an appointment a follow-up phone call or card will not only serve as a reminder, but will again stress to him that his doctor feels it is important to control his blood pressure and cares about him as an individual. A patient who continues to be non-compliant may have underlying psycho-social problems that might need further exploration. A nurse could assist with referrals to a social worker or to community agencies that could be helpful to the patient. If office personnel are not available, the Public Health Department might be willing to lend a nurse and dietitian for group instruction.

Dietary counseling is important if sodium restriction is to be followed. If a dietitian in your office a few hours a day is not possible, take advantage of hospital outpatient diet departments, the public health centers, or local chapters of the American Heart Association.

It is impossible to outline a fool-proof approach to solving the problem of non-compliance in hypertension. However, a few principles are

evident. The belief of the physician in the aggressive treatment of hypertension to prevent cardiovascular morbidity and mortality is imperative before he can expect his patient to comply. A one to one relationship with health personnel is important for patient education, motivation and support. Frequent effective contact, no less than every 2 to 3 months, with some health personnel is important, along with follow-up of missed appointments.

MARGARET DYE, R.N.

REFERENCES

1. Finnerty, FA, Jr: The hypertension problem. *Circulation*, 48:681-3, 1973.
2. US Veterans Administration, Co-operative study group on antihypertensive agents. Effects of treatment on morbidity in hypertension: Results in patients with diastolic blood pressure averaging 90-115 mmHg. *JAMA*, 213:1143, 1970.
3. The Framingham Heart Study, Thomas R Dowber, MD, Abraham Kagan, MD, and William B. Kannel, MD, US Department of Health, Education and Welfare, Public Health Service, 1964.
4. Wilbur, JA, Barrow, JG: Reducing elevated blood pressure—Experience found in a community. *Minn Med*, 52:1303, 1969.

5. Finnerty, FA, Sr, et al: Hypertension in the inner city. I. Analysis of clinic dropouts. *Circulation*, 47:73, 1973.

6. Roundtable discussion—Bridging patients and experts views of high blood pressure. *Patient Care*, special issue. *Hypertension*, November 15, 1973, p. 164, 1973.

7. Stewart, RB, Leighton, EC: A review of medication errors and compliance in ambulant patients. *Clinical Pharmacology and Therapeutics* 13:463, 1972.

8. Caldwell, JR, Cobb, S, Dowling, MD, DeJongh, D: A pilot study of social and emotional factors influencing a patient's ability to follow antihypertensive treatment. *J Chronic Dis*, 22:579, 1970.

SUGGESTED READINGS

Readings in Health Education. American Hospital Association, 840 N. Lake Shore Drive, Chicago, Ill. 60611.

Strategies for Patient Education. Second International Conference on Patient Education conducted by the American Hospital Association at the Kellogg Center for Continuing Education, University of Chicago, October 6-8, 1969. (See above for address).

Selected References on Patient Education, U.S. Department of HEW. HEW Pub. # (HRA) 74-4001 Health Resources Administration, Health Care Facilities Service Office of Education and Training, 5600 Fishers Lane, Rockville, Maryland 20852.

* * *

From the Department of Public Health

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practical nurse or vocational nurses, nurse's aide, or home health aides. The composition is dictated by need and manpower availability.

A third component is the Health Outreach Team. These personnel may be of several definitions, The members can include: social workers, public health nurses, health educators, community health aides, or other health workers. Outreach is an important aspect of the total program. It refers to work in a community of an informational nature or in a social advocate role of intervening for individuals who need assistance in securing health care. This, of course, adds the extra dimension of a point of access for our citizens into the health care system.

The Moore County center is in a very early stage of development. The staff composition outlined in the preceding paragraphs serves more as a goal than as a picture of current operations. But whatever the composition, the Primary Care Team has the responsibility to assure continuity of care and to center attention on the family unit in order to provide more effective care to each patient and, ultimately, to our non-urban population.

Moore County is just a beginning. But, hopefully, and with the cooperation of all those concerned about medical care for the citizens of this state, it is a beginning that augers well for the future—a future that will see all of our citizens, rural and urban alike, granted access to primary health care services.

EUGENE W. FOWINKLE, M.D.
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from the tennessee department of mental health

Uppers and Downers

Of the many controlled substances now being abused by Tennesseans, stimulants and sedatives probably represent the category in which the largest percentage of abusers are going untreated and unnoticed. Although 24% of all persons treated in Tennessee mental health centers and hospitals for drug abuse in 1973 were either stimulant or sedative abusers, this represents only slightly more than 1,000 individuals. This figure is very small, indeed, when compared with the number of actual abusers in the State. Although no survey has been completed to determine this figure, an idea of its enormity can be gained by viewing available nationwide statistics. In 1967, 178,000,000 prescriptions were filled by U.S. pharmacies for mood changing drugs. These prescriptions went to some 30,000,000 adult Americans. While the majority of these drugs are legally used for medical purposes, an unknown but large quantity also enters illegal channels. Recent estimates indicate that probably one-half of these drugs which are manufactured in the United States are diverted to illicit use. It should be noted that the number of sedatives abused far outnumbers the total of stimulants abused, but the incidence of abuse in both categories is rapidly rising.

There are many facilities located across the State of Tennessee which now offer treatment for stimulant, sedative, and other abusers. There are 30 mental health centers in the State offering this treatment located in the State's 30 common geographic community service areas. In this way, the needed services will be reasonably near the home of the person seeking help so that it may be obtained conveniently, with less risk of breaking family, social, and occupational ties. In addition to the services offered by the mental health centers, each of the State's five psychiatric hospitals has inpatient wards for the treatment of drug abusers. Therefore, when hospitalization is needed, the appropriate referral may be made by the mental health centers. There are also three halfway houses, three Regional Councils for Alcohol and Drug Abuse, five methadone clinics and three crisis intervention centers operating in various locations throughout the State.

The core of the State's drug abuse treatment

mechanism, however, is centered around the thirty mental health centers. In order to be classified by the Department of Mental Health as comprehensive, a mental health center must offer the following services: inpatient, outpatient, partial hospitalization, emergency services, and consultation and education. At this time ten of the thirty mental health centers have attained this status. The Department is providing technical assistance to the others in helping them to work toward this goal. In this manner, a wide variety of service will be offered the abuser, in a location near his home.

Some of the treatment options which are offered the sedative and stimulant abuser in the State's various treatment programs are day programs, outpatient clinical services, and rehabilitation services, brief descriptions of which are given below.

The primary objective of a day program is to provide a wide range of treatment and rehabilitative services for those persons not requiring inpatient care. The basic treatment philosophy of this program places an emphasis on group treatment, with education playing a major role in the program. A day program usually operates from 8:00 A.M. until 5:00 P.M., five days per week. Patients are involved at least six hours of the day.

There are many different varieties of outpatient treatment modalities offered in Tennessee's drug programs. Basically, however, these programs are much less intense than the day programs.

Rehabilitation services are designed to supplement treatment services and focus on improvement of the client's ability to function effectively in the community. Services focus on vocational counseling, training, and placement, as well as social skills.

These are some of the services currently being afforded the sedative and barbiturate abuser in Tennessee. While in many areas these services are in the developmental stages, efforts are being made by the Department of Mental Health to see that all Tennesseans who are in need of help for the abuse of these drugs will have it available in a location near to their home.

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Rondomycin[®]

(methacycline HCl)

CONTRAINDICATIONS: Hypersensitivity to any of the tetracyclines.

WARNINGS: Tetracycline usage during tooth development (last half of pregnancy to eight years) may cause permanent tooth discoloration (yellow-gray-brown), which is more common during long-term use but has occurred after repeated short-term courses. Enamel hypoplasia has also been reported. **Tetracyclines should not be used in this age group unless other drugs are not likely to be effective or are contraindicated.**

Usage in pregnancy. (See above **WARNINGS** about use during tooth development.) Animal studies indicate that tetracyclines cross the placenta and can be toxic to the developing fetus (often related to retardation of skeletal development). Embryotoxicity has also been noted in animals treated early in pregnancy.

Usage in newborns, infants, and children. (See above **WARNINGS** about use during tooth development.)

All tetracyclines form a stable calcium complex in any bone-forming tissue. A decrease in fibula growth rate observed in prematures given oral tetracycline 25 mg/kg every 6 hours was reversible when drug was discontinued.

Tetracyclines are present in milk of lactating women taking tetracyclines.

To avoid excess systemic accumulation and liver toxicity in patients with impaired renal function, reduce usual total dosage and, if therapy is prolonged, consider serum level determinations of drug. The anti-anabolic action of tetracyclines may increase BUN. While not a problem in normal renal function, in patients with significantly impaired function, higher tetracycline serum levels may lead to azotemia, hyperphosphatemia, and acidosis.

Photosensitivity manifested by exaggerated sunburn reaction has occurred with tetracyclines. Patients apt to be exposed to direct sunlight or ultraviolet light should be so advised, and treatment should be discontinued at first evidence of skin erythema.

PRECAUTIONS: If superinfection occurs due to overgrowth of nonsusceptible organisms, including fungi, discontinue antibiotic and start appropriate therapy.

In venereal disease, when coexistent syphilis is suspected, perform darkfield examination before therapy, and serologically test for syphilis monthly for at least four months.

Tetracyclines have been shown to depress plasma prothrombin activity; patients on anticoagulant therapy may require downward adjustment of their anticoagulant dosage.

In long-term therapy, perform periodic organ system evaluations (including blood, renal, hepatic).

Treat all Group A beta-hemolytic streptococcal infections for at least 10 days.

Since bacteriostatic drugs may interfere with the bactericidal action of penicillin, avoid giving tetracycline with penicillin.

ADVERSE REACTIONS: Gastrointestinal (oral and parenteral forms): anorexia, nausea, vomiting, diarrhea, glossitis, dysphagia, enterocolitis, inflammatory lesions (with monilial overgrowth) in the anogenital region.

Skin: maculopapular and erythematous rashes; exfoliative dermatitis (uncommon). Photosensitivity is discussed above (See **WARNINGS**).

Renal toxicity: rise in BUN, apparently dose related (See **WARNINGS**).

Hypersensitivity: urticaria, angioneurotic edema, anaphylaxis, anaphylactoid purpura, pericarditis, exacerbation of systemic lupus erythematosus.

Bulging fontanels, reported in young infants after full therapeutic dosage, have disappeared rapidly when drug was discontinued.

Blood: hemolytic anemia, thrombocytopenia, neutropenia, eosinophilia.

Over prolonged periods, tetracyclines have been reported to produce brown-black microscopic discoloration of thyroid glands; no abnormalities of thyroid function studies are known to occur.

USUAL DOSAGE: Adults—600 mg daily, divided into two or four equally spaced doses. More severe infections: an initial dose of 300 mg followed by 150 mg every six hours or 300 mg every 12 hours. Gonorrhea: In uncomplicated gonorrhea, when penicillin is contraindicated, 'Rondomycin' (methacycline HCl) may be used for treating both males and females in the following clinical dosage schedule: 900 mg initially, followed by 300 mg q.i.d. for a total of 5.4 grams.

For treatment of syphilis, when penicillin is contraindicated, a total of 18 to 24 grams of 'Rondomycin' (methacycline HCl) in equally divided doses over a period of 10-15 days should be given. Close follow-up, including laboratory tests, is recommended.

Eaton Agent pneumonia: 900 mg daily for six days.

Children—3 to 6 mg/lb/day divided into two to four equally spaced doses.

Therapy should be continued for at least 24-48 hours after symptoms and fever have subsided.

Concomitant therapy: Antacids containing aluminum, calcium or magnesium impair absorption and are contraindicated. Food and some dairy products also interfere. Give drug one hour before or two hours after meals. Pediatric oral dosage forms should not be given with milk formulas and should be given at least one hour prior to feeding.

In patients with renal impairment (see **WARNINGS**), total dosage should be decreased by reducing recommended individual doses or by extending time intervals between doses.

In streptococcal infections, a therapeutic dose should be given for at least 10 days.

SUPPLIED: 'Rondomycin' (methacycline HCl): 150 mg and 300 mg capsules; syrup containing 75 mg/5 cc methacycline HCl.

Before prescribing, consult package circular or latest PDR information.

Rev. 6/73



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**from the
executive
director**

J. E. BALLENTINE

MEDICAL DIGEST

NEWS OF INTEREST TO DOCTORS IN TENNESSEE

TMA AT WORK . . . 1974 got off to a busy start with three committees meeting in addition to the two-day session of the Board of Trustees, and a lengthy one-day meeting of the TMA Judicial Council . . . The meetings included the Committee on Medicine and Religion, Committee on Communications and Public Service, and the Travel Committee . . . The Judicial Council in its session acted upon a number of problems, including the case of a physician in violation of ethics. The Council acted, in cooperation with the Hospital Committee, to request hospitals in the State to certify to TMA any unlicensed physician working in the hospital. Also, the Council asked for information on whether or not the unlicensed physician was under direct supervision of a licensed physician, and whether or not he was exercising independent medical judgment . . . The Council also studied separate billing by hospital-based physicians.

* * * * *

TMA GAINED A NET OF 154 NEW MEMBERS IN 1973 . . . An increase of 154 members was realized during 1973, pushing the total membership of TMA to 3,749 as of January 1, 1974 . . . Of this number, 3,308 are also members of AMA. This represents 89% of TMA's membership.

* * * * *

PRE-ADMISSION OF MEDICARE AND MEDICAID PATIENTS . . . The Secretary of HEW on February 5, stated that he would not pursue his proposed regulations which would require hospital utilization review committees to certify elective Medicare and Medicaid admissions before the patient could have a bed . . . The proposed regulations were published in the January 9 Federal Register, allowing a thirty-day period for comments and objections . . . In consort with the AMA, the TMA fired off a list of objections. AMA officials stated an injunction would be sought to prevent HEW enforcement of the regulations, citing that they would withhold benefits from Medicare-Medicaid patients in violation of Section 1801 of Public Law 92-603 . . . On February 6, HEW Secretary Weinberger stated his decision and said, "After reviewing all of the comments that we have received after proposing this regulation, I have come to the conclusion that this proposal would interfere with the physician and his patient in terms of hospital admissions, and that physicians would not be doing pre-admission review."

* * * * *

AMA SUES TO END CONTROL ON HEALTH CARE . . . On February 19, the AMA filed a lawsuit against the Cost of Living Council to seek an end to economic controls on Medicine. The charges stated that current Phase IV regulations are "confiscatory, arbitrary and capricious," that they

violate the general fair and equitable standards established by Congress, and that they violate the Fifth Amendment of the U.S. Constitution. The action charges that Phase IV regulations represent an "attempt to mold the health care delivery system in keeping with the CLC's concept for health care" . . . With respect to the entire system of controls, the suit pointed out that the system of controls has not worked. Controls create inflation and they do not prevent it. This is not inflation control; it is nothing less than a latent attempt by the social schemers at CLC to impose their will on the physicians and patients of America, according to the announcement of the filing of the lawsuit.

* * * * *

GASOLINE PRIORITIES . . . In absence of priority allocations of gasoline for health care and particularly physicians under the Federal Energy Office Contingency Rationing Plan, would place physicians in the scramble like any other of the public . . . TMA is working with the State Fuel Allocation Office, and also appealed to the Federal Energy Office urging priorities for physicians and emergency medical systems. This effort will be continued in the days ahead.

* * * * *

SPONSORED TOURS . . . TMA continues to present popular travel tours. The tours have been highly accepted by the membership. TMA's program includes two tours per year, and the 1974 two-week trip will perhaps be the most popular one yet sponsored, since it is to the countries of Switzerland, Germany and Austria. Departure date is September 10, 1974.

* * * * *

INCORPORATING OR FORMING A PARTNERSHIP . . . Incorporation, or the forming of a partnership creates a legal entity that needs to be insured against third party liability. Be sure and advise your agent of this happening so that you can be properly protected.

* * * * *

PHYSICIAN ESTEEM . . . The medical profession has recaptured some of its lost public esteem. Two recent surveys indicate that 57% of all of those polled expressed a great deal of confidence in the medical profession. Other rankings were universities, 44%; T.V. news, 41%; military, 40%; U.S. Senate, 30%; the press, 30%; major companies, 29%; U.S. House of Representatives, 29%; and labor, 20%. In another poll, 2,200 adults were asked to list nine professions in order of admiration and esteem. Physicians were first.

* * * * *

PSRO'S—PEER REVIEW . . . Peer review is a fact of life. Late in 1972, it moved from the pages of professional journals to the law books when the 92nd Congress included the Bennett Amendment in Public Law 92-603. As a result of action taken by the TMA House of Delegates, the Tennessee Foundation for Medical Care, Inc., has been established, and is now staffed and in business to carry out the function of the implementing of professional standards review. Until January 1, 1976 only physician organizations can participate in establishing PSRO's . . . Area designations in Tennessee were made by HEW, and Tennessee was divided into three areas. Your Association officers and leaders provided enough force to obtain modifications in the original designations, changing the number of areas from three to two. This more nearly carries out the original plan for a statewide concept of a peer review organization . . . PSRO is a bad and unpopular law.

**public
service**



COMMUNICATIONS • LEGISLATION

HADLEY WILLIAMS, ASSISTANT EXECUTIVE DIRECTOR

TENNESSEE GENERAL ASSEMBLY ADJOURNS . . . The 88th Tennessee General Assembly recessed March 29th after an 84-legislative day session. By far the most controversial piece of legislation was regarding the establishment of a second State-supported Medical School in Johnson City. The bill was ultimately adopted over Governor Winfield Dunn's objection and veto. The final vote by the House to override the veto was 51 to 37, only one vote over the required 50 needed to override. The measure calls for an initial State appropriation of \$400,000 provided Federal funds are made available under the Teague-Cranston Act. The school would be "free-standing and would function as part of East Tennessee State University and Mountain Home Veterans Hospital. Selection of the site by the Veterans Administration has not yet been made, however. Governor Dunn had offered a compromise proposal which would have established a medical school at ETSU as part of the existing University of Tennessee Medical Units. TMA opposed the "free-standing" concept by action of the House of Delegates in 1972 and called instead for up-grading the existing UT School of Medicine and the creation of Clinical Training Centers across the State in order to increase the number of residency and internship programs.

* * * * *

TENNESSEANS ATTEND AMA/AMPAC WORKSHOP . . . Tennessee was well represented at the annual AMA/AMPAC Public Affairs Workshop held in Washington, D.C., March 16-17. Four members of the state political action committee (IMPACT) Board of Directors attended. They were Drs. Edward H. Welles of Dresden, Dale A. Teague of Knoxville, Richard P. Ownbey of Nashville and Mrs. Cooper H. McCall of Lookout Mountain. Drs. E. Kent Carter of Kingsport, TMA President-Elect; J. Kelley Avery of Union City, Chairman of the TMA Board of Trustees; Paul E. Hawkins, Secretary-Treasurer of the Chattanooga-Hamilton County Medical Society were also in attendance. Mr. Hadley Williams and Mr. John Coles of the TMA staff completed the Tennessee delegation.

* * * * *

KEOGH REVISIONS ADOPTED . . . The Pension Reform Bill which liberalized the Keogh plan for retirement savings of the self-employed was adopted by the House of Representatives in early March. The Senate had already passed a similar bill. Both measures now go to a Conference Committee to hammer out differences. The bills would permit the self-employed to save up to 15% of income or \$7,500 a year tax deductible, compared with the present 10%, \$2,500 maximum. They also would provide corporate executives of professional service and regular corporations with tax deferrals on contributions to plan to bring in a maximum of \$75,000 a year upon retire-

ment. Organized labor attempted to amend the Keogh plan provision to keep it at its present level. AMA and other organizations opposed the move and Labor's amendment was defeated on the floor of the House.

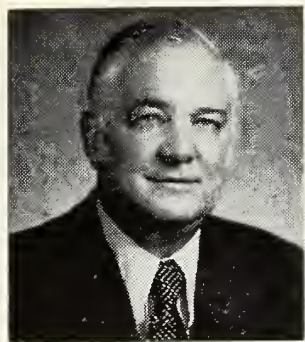
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MAJORITY OF NEW MED STUDENTS FROM RURAL COMMUNITIES . . . The University of Tennessee Medical Units admissions office reports that more than half of the students admitted for the class entering in July are from rural areas in Tennessee. A total of 59 of the 104 students accepted or 56.7% are from non-metropolitan areas of the state. Out of 569 Tennessee students enrolled in Medicine at the school this Fall, 230 were from East Tennessee, 222 from West Tennessee and 117 from Middle Tennessee. The 104 students accepted for the July class had a mean grade point average of 3.54 out of a possible 4.0. The 320 applicants who were not accepted had a mean grade point average of 3.01. The accepted students had an average score of 592 out of a possible 800 on their Medical College Aptitude Test. Those not accepted had an average of 540. The current National Mean Score on the test is 570.

* * * * *

MEDICAL MALPRACTICE CLAIMS SMALL IN NUMBER . . . The AMA publication, UPDATE, reports that despite the publicity resulting from a few large malpractice cases, a medical malpractice incident is a relatively rare event; claims are even rarer and jury trials are rarer still. For example:

- . In 1970, a malpractice incident was alleged or reported for one out of every 158,000 patient visits to doctors.
- . In 1970, a claim was asserted for one out of every 226,000 patient visits to doctors.
- . Fewer than one court trial was held for every 10 claims closed in 1970.
- . Most doctors have never had a medical malpractice suit filed against them and those who have, have rarely been sued more than once.
- . In 1970, 6.5 medical malpractice claim files were opened for every 100 active practitioners.
- . A 10-year survey, from 1960 to 1970, of the claims experience of 2,045 physicians in Maryland indicated that 84 per cent had not been sued, 14 per cent were sued once, and 2 per cent were sued more than once.
- . Most hospitals, no matter how large, go through an entire year without having a single claim filed against them.
- . Sixty-nine per cent of 4,113 hospitals surveyed from June 1971 to June 1972 had not had a malpractice claim, 10 per cent had one, and 21 per cent had two or more.
- . Most patients have never suffered a medical injury due to malpractice and fewer still have made a claim alleging malpractice.
- . If the average person lives 70 years, he will have, based on 1970 data, approximately 400 contacts as a patient with doctors and dentists. The chances that he will assert a medical malpractice claim are one in 39,500.



MORSE KOCHTITZKY

president's page

It is with mixed emotions that I write this last President's Page in my tenure as your spokesman for the Tennessee Medical Association. It has been an interesting, but also extremely difficult year. I doubt if there has ever been a time in the history of Medicine when there were more governmental pressures and interferences with our individual and collective opportunities to care for our patients, or for that matter, do research, teach, or involve ourselves in any other facets of Medicine.

I believe that this is the time for organized medicine to step forward and fully accept its collective responsibility. It is a time of great opportunity for leadership. Perhaps there will never again be the opportunity for Medicare to take charge of their affairs any more fully than we have now under the PSRO law. We have repeatedly said we would like to see PSRO repealed. I believe that if it is, we will get something worse. In getting something worse, we will lose the opportunity for control. As of now, if we the medical profession can strongly exert our influence over ourselves, conduct our review as it should be done within the hospital, then insurance carriers and hospitals will find themselves asking Medicine for the help and assistance that they of necessity must have to carry out the current law. We will then find that the government, who has been considered our greatest enemy, has given us the mechanism by which we can regain complete charge of the practice of medicine. I urge you to give this consideration and serious thought to the immediate future.

I do not expect my successors to have any easier time than we have had this past year. It is my hope that we remain innovative in our approach to problem solving—accepting the new when it spells improvement and protecting the old when found to be time-tested and proven to be for the betterment of our profession. This will take your wholehearted cooperation in order that Medicine may be united.

We have found the AMA, and particularly the Washington office staff, to be extremely capable people who are willing to work long, hard hours on our behalf in the legislative arena.

I also want to express my grateful appreciation to Jack Ballentine and Hadley Williams, and all of the staff for their constant help to me in the past year. I am most appreciative of the cooperation from you and your county medical societies.

I am grateful to the Board of Trustees. They have been extremely supportive. The Board is a group who do not hesitate to share their opinions with one another, and who work hard on your behalf.

Sincerely,

PRESIDENT

THE NEW PRESIDENT



E. KENT CARTER, M.D.
KINGSPORT

EDWARD KENT CARTER, M.D.

86th President—Tennessee Medical Association

THE COMING YEAR promises to be a vital one for the medical profession throughout the nation. Tennessee is no exception and we can count our blessings that we will have strong leadership in TMA to cope with the problems confronting us. With twenty-eight years of experience in the field of medicine, including activities in community, civic and hospital affairs, the Tennessee Medical Association's new President is obviously highly qualified to handle effectively the many assignments involved in this office.

Born in Clinchport, Virginia, November 29, 1922, Dr. Carter attended high school in Gate City, Virginia, received his B.S. Degree from Lincoln Memorial University in 1942, and was graduated from The Medical College of Virginia in 1946. After internship at Southern Baptist Hospital in New Orleans, 1946-47, he served in the Navy Medical Corps, 1947-50. His radiology residency was at The Medical College of Virginia, and he was a staff radiologist at the Duke University Hospital in Durham, North Carolina. Dr. Carter has been in the radiology department at the Holston Valley Community Hospital in Kingsport since 1953, and has been chairman of that department since 1968. He became a diplomate of the American Board of Radiology in 1953, and a Fellow of the American College of Radiology in 1961.

Dr. Carter's professional and leadership abilities is evidenced by the number of posts he has held: President of the Medical Staff, Holston Valley Community Hospital; Secretary and President of the Sullivan-Johnson County Medical Society; Co-Founder and President of the East Tennessee Radiological Society and President of the Tennessee Radiological Society; TMA positions held: twelve years a delegate to the TMA House; member of the Board of Trustees and Legislative Committee, Legislative Contact Physician, and a member and active in IMPACT.

His memberships in addition to local, state and national organizations include: The First Broad Street United Methodist Church where he has served on the Finance Committee; American Legion; Elks and Moose Lodge; Ridgely Country Club where he has served as President; and Theta Kappa Phi Medical Fraternity. His professional organizations are: Sullivan-Johnson County Medical Society, TMA, AMA, Southern Medical Association and Radiology Society of North America.

Dr. Carter has been active in the American Cancer Society, and has served as Chairman of the United Funds Budget Committee. He is an avid golfer, likes country music, and sports in general.

He was married to the former Pamela Ruth Murphy of Damascus, Virginia, in 1950. They have two sons: Preston K. Carter, a junior at East Tennessee State University, and Duane Craighill Carter, a senior in Kingsport High School. Their daughter, Dudley Ann Carter, is a freshman at the University of Tennessee in Knoxville. The Tennessee Medical Association is indeed fortunate to have as its new President a physician of Dr. Carter's caliber, experience and dedication. He will handle expertly the many matters developing during his term of office and will serve the TMA and its members efficiently, and will continue to elevate public esteem for the medical profession, as have his predecessors.

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APRIL, 1974

editorials

The AMA and You

AMA membership, signifying unity among physicians, is becoming absolutely necessary, as the government continues its policy of divide and conquer. By splitting states into several PSRO areas, the HEW bureaucrats hope to dilute or destroy the effectiveness of state medical societies, whose delegates make up the governing body of the AMA. Individual physicians aid them in their machinations by withdrawing support from organized medicine.

Why support the AMA? It is charged with not being sensitive to the desires and needs of "medicine." It is accused of not moving fast enough in times of change. By whose criteria?

"It" is "us." The AMA is the doctors of the country. The policymakers are practicing physicians like yourselves. If the AMA is accused of moving too slowly by some, others think it moves too fast. After all, "medicine" is not an homogeneous entity. It is true that by and large the practicing physician has been among the more conservative members of society, more resistant than some to change. But there are also many who are quite liberal, and their number is increasing. For this reason, many of the policies of the AMA, and many of the resolutions passed by the House of Delegates, are compromise measures.

When people start talking about "no compromising of principles," they usually mean "I must have what *I* want—what is good for *me*" an immature approach. If we split off from or refuse to join the AMA because we disagree, we will gradually destroy ourselves, and open the way for even more bureaucratic control.

The Economic Stabilization Act is due to expire on April 20 unless the Congress provides for its continuation. Its provisions have been highly discriminatory against segments of the health profession, notably physicians, dentists, osteopaths, and hospitals. This discrimination is selective in that certain other members of the health professions, i.e., optometrists, opticians, and clinical psychologists, not to mention some fringe groups, such as chiropractors and naturopaths, have been removed from control, as have all other professions—legal, engineering, etc. This in spite of the fact that physicians generally have been more cooperative than most others in stabilizing rising costs.

The AMA—your representative body—has filed a lawsuit against the Cost of Living Council and its individual officers because of discriminatory practices against the medical profession and other segments of the health industry. (See *National News*). They are acting in your behalf. If you think current discriminatory practices of the federal government are wrong, why not support your national body? This suit is filed not by some *other* bureaucrats in our own organization, but by your own elected representatives—the president of the AMA and the chairman of its board of trustees. If you don't like what they do, you can vote them out—unlike the civil servants in our federal government, who actually make the regulations, and who cannot be removed.

Why not, then, support the AMA? If you do

not belong, join. If you belong, proselyte. It is your organization, and it can do for you what you cannot do for yourself. Keep it strong!

JBT

Eoastur-monath

By the time you read this, Spring will have been with us officially for three or four weeks, and Easter will have passed. Yet it seems inappropriate to let this important season go by without comment. Primitive man, having been locked in winter for months, watching the sun grow dim, with no real assurance that it would ever return, had plenty to say about it. As he watched the trees and flowers spring to life, he felt new life in himself, and so at the time of the vernal equinox he celebrated the death of winter, and in various ways expressed his gratitude to his deities, to whom he ascribed responsibility for this rebirth of his world.

But for its thorough grounding in history, the Christian Easter would be—and indeed has been by some—looked upon as simply another resurrection story in a long line of resurrection stories. After all, the Teutonic *Eoastur-monath*, our March, was dedicated to *Eostre*, or *Ostara*, the goddess of Spring, hence, *Easter*. Just a pagan festival—the most joyous time of the Teutonic year, celebrating Earth's resurrection.

History tells us, however, that it was in Spring that God led his people out of Egypt, after His avenging angel had passed over the homes which had the cross marked in blood on the door posts. The time of celebration of this event was clearly specified in the most ancient of the Hebrew writings, and it has continued to be celebrated at this time for some 3500 years. Jesus had gone to Jerusalem for this celebration at the time of His crucifixion.

The empire of Constantine, following his conversion to Christianity in A.D. 312, with his conquest of Rome, came to encompass the entire known western world and much of the East. He decreed that everyone in his empire was Christian, though many, including Constantine himself, remained outside the church. Since people do not overnight give up their religious heritage—witness the Biblical accounts of Hebrew worship of idols coincident with their worship of Yahweh—many pagan customs and festivals were absorbed into the liturgy and calendar of the church.

It was an easy transition from *Eoastur-monath*

to Easter, though it was fraught with contention. The first century church celebrated the resurrection on each Lord's day. Later, the Eastern church celebrated the crucifixion each year at the Passover, while the Western church celebrated the resurrection at Easter. The reformed church, especially the Puritans, who abhorred the excesses of the Roman church, viewing them as a pagan frolic, refused to celebrate Easter, and except for Louisiana and Virginia, which were not under Puritan influence, it was not celebrated in this country until the time of the Civil War. At that time the celebration of Easter by the Protestant churches, other than the Lutherans and Episcopalians, who had never stopped, sprang from a desire to bring consolation to those bereaved by the war. How sad—and how human—it is for such a joyous occasion to cause so much strife.

In A.D. 325 the Emperor Constantine convened the Council of Nicaea, which set the celebration of the Lord's resurrection on the first Sunday after the first full moon after the vernal equinox, taken at Alexandria, the site of the observatory. Surely it can be no coincidence that God chose the time of the yearly resurrection of His world for the resurrection of His Son.

JBT



ALEXANDER, EBEN, Knoxville, died February 23, 1974, age 94. Graduate of Jefferson Medical College in Philadelphia, 1904. Member of Knoxville Academy of Medicine.

MASON, CHARLES ROBERT, Memphis, died February 27, 1974, age 88. Graduate of College of Physicians & Surgeons, 1911. Member of Memphis-Shelby County Medical Society.

SPARLING, JR., HAROLD JUDD, Union City, died February 13, 1974, age 54. Graduate of Boston University, 1944. Member of Northwest Tennessee Academy of Medicine.

STEPHENSON, WILLIAM G., Chattanooga, died February 11, 1974, age 70. Graduate of Medical College of Virginia, 1930. Member of Chattanooga-Hamilton County Medical Society.

WOODS, DEXTER L., Waynesboro, died February 14, 1974, age 73. Graduate of Vanderbilt University, 1926. Member of Lawrence County Medical Society.

new members

The JOURNAL takes this opportunity to welcome these new members of the Tennessee Medical Association.

CAMPBELL COUNTY MEDICAL SOCIETY

Jesse L. Walker, M.D., Harrogate

CHATTANOOGA-HAMILTON COUNTY MEDICAL SOCIETY

William K. Striker, M.D., Chattanooga

McMINN COUNTY MEDICAL SOCIETY

Yung Gil Lee, M.D., Etowah

George A. Ortiz, M.D., Athens

MEMPHIS-SHELBY COUNTY MEDICAL SOCIETY

Billy S. Arant, Jr., M.D., Memphis

George A. Burghen, M.D., Memphis

J. Roland Carter, M.D., Memphis

Mark E. Heerdt, M.D., Memphis

H. David Hickey, Jr., M.D., Memphis

Dennis A. Higdon, M.D., Memphis

Elliot H. Himmelfarb, M.D., Memphis

William R. Kendrick, Jr., M.D., Millington

John M. Kington, M.D., Memphis

Asghar Koleyani, M.D., Memphis

Edward H. Lazar, M.D., Memphis

James D. Massie, M.D., Memphis

Robert C. McEwen, M.D., Memphis

S. Mohammed Moinuddin, M.D., Memphis

Modesto G. Peralta, M.D., Memphis

Jane A. Sanders, M.D., Memphis

Frederick H. Shipkey, Jr., M.D., Memphis

Robert L. Siegle, M.D., Memphis

William Chapman Smith, M.D., Memphis

David L. Speer, M.D., Memphis

NASHVILLE ACADEMY OF MEDICINE

Owen C. Bell, M.D., Hendersonville

Lloyd Rudy Broomes, M.D., Nashville

Arkam Chulamorkodt, M.D., Nashville

Gerald Halprin, M.D., Nashville

Edmundo D. Magpantay, M.D., Mt. Juliet

Abelardo Z. Manalac, Sr., M.D., Mt. Juliet

Embry A. McKee, M.D., Nashville

Daniel Mendoza, M.D., Hendersonville

James W. Nickerson, Jr., M.D., Nashville

Percival G. Pascua, M.D., Madison

Charles W. Quimby, Jr., M.D., Nashville

John M. Rainey, Jr., M.D., Nashville

Allen L. Schlamp, M.D., Nashville

ROANE-ANDERSON COUNTY MEDICAL SOCIETY

Clarence C. Lushbaugh, M.D., Oak Ridge

programs and news of medical societies

Marshall County Medical Society

The Marshall County Medical Society met on February 25, 1974 at the Lewisburg Community Hospital Conference Room. A scientific program was presented by Dr. Dennis Patton, Nuclear Radiologist, Vanderbilt University. Dr. Patton spoke on nuclear scanning.

Nashville Academy of Medicine & Davidson County Medical Society

The Academy sponsored a symposium on problems relating to physicians' billing and Phase IV price increases on March 7 at the Baptist Hospital Auditorium. The purpose of the meeting was to inform physicians and their accounting clerks on the new Phase IV Formula and regulations pertaining to physicians' fees.

national news

THIS MONTH IN WASHINGTON (From Washington Office, AMA)

The American Medical Association has announced the filing of a law suit against the Cost of Living Council to seek an end to all economic controls on medicine.

At a news conference in the AMA-Washington office, the organization disclosed that it is seeking an injunction against the Phase IV regulations on physicians and hospitals. It charged that the rules are "confiscatory, arbitrary and capricious," that they violate the "generally fair and equitable" standard established by Congress and that they violate the fifth amendment of the U.S. Constitution.

Announcement of the legal action was made by Russell B. Roth, M.D., President of the AMA, and James H. Sammons, M.D., Chairman of the AMA Board of Trustees.

In its complaint stating its legal action, the AMA pointed out that the Phase IV regulations represent an "attempt to mold the health care delivery system to comport with the CLC's concepts for health care" and are specifically designed "to curb the quantity and quality of health care services as an integral part of the legislative program to induce Congress to enact national health insurance."

The AMA asked that the court declare these Phase IV regulations invalid and enjoin the Cost of Living Council from enforcing them.

In his statement, Dr. Roth said the AMA was filing in U.S. District Court, District of Columbia, a suit seeking an injunction against the Cost of Living Council. "We are asking the court to declare invalid the Phase IV regulations as applied to physicians and hospitals on the grounds that they are confiscatory, arbitrary, capricious and discriminatory.

"We further believe that they violate the very law on which they are based in that they do not conform to the 'generally fair and equitable' standard written into the law by the Congress.

"Finally, we believe that they violate the most fundamental law of the land—the Constitution of the United States in that they confiscate the property of physicians and hospitals without due process of law, a clear infringement of the fifth amendment.

"Those are the legal tenets on which we are basing our case. We are convinced that they are valid and sound and that they will prevail in the courts.

"But while we proceed on legal grounds, I think it is important to point out that we believe the issues involved are far broader than mere legalisms and that they cast their shadows far beyond the limited scope of Phase IV.

"They are issues of principle and they have profound implications for the future of health care in this country.

"—It is patently unfair and unreasonable for the services of some working people—namely us physicians—to be subject to severe price controls while permitting other working people to function in a free market. That is not fair play; it is an act of discrimination.

"It is patently unfair to apply a revenue margin limitation to physicians in private practice so that they are penalized if they work longer hours and see more patients. That is not fair play; it is an act of capriciousness—not to mention that it is also short-sighted as hell.

"In the face of this advice and the evidence that controls don't work, why does the Cost of Living Council persist in continuing the controls?

"CLC officials have made no secret of the fact that they intend to control far more than costs in the health care field through their regulations. The press release from the CLC announcing Phase IV established these goals:

"—reduce the inflationary rate of increase in the cost of hospital stay;

"—provide economic incentives for the substitution of less expensive ambulatory care in

place of inpatient hospital care where possible;

"—maximize internal flexibility and incentives for health care managers to improve productivity;

"—be responsive to cost saving innovations, such as health maintenance organizations and prospective reimbursement plans. . . ."

"Further, to enforce the last of these goals, the Phase IV regulations were drawn to confer outright favoritism on physicians under contract with an HMO. They have been exempted from the revenue margin limitation that is applied to physicians in private practice.

"This is not economic stabilization. This is not inflation control.

"This is nothing less than a blatant attempt by the social schemers at CLC to impose their will on the physicians and patients of America.

"What right have they to tell us how to practice medicine?

"What right have they to tell the American people where and how they shall receive their medical care?

"These are *not* economic controls . . . they are political controls. We intend to fight them right down the line—.

"We recognize how appealing it is to try—through controls—to keep the lid on at least some costs during this period of astronomical inflation. We certainly recognize and are sensitive to the plight of the great majority of wage earners who have been caught in this terrible squeeze. We have tried to do our share to keep costs down.

Since the beginning of Phase I in August 1971, physicians fees have risen but 7.3 per cent while the cost of living generally has risen by 13.3 per cent and legal fees, by contrast, have risen by 26 per cent.

"We have cooperated—the figures prove that. But now the time has come to call a halt.

"For the simple truth is that unless the controls are removed—and soon—the quality of health care—particularly in the hospitals—is going to suffer.

"—And that is precisely what is going to happen very soon if the controls continue.

"We believe the American people had better know and understand that."

* * *

One day after the AMA filed its suit against the Cost of Living Council President Nixon reaffirmed the Administration's intention to keep cost controls on hospitals and physicians until a national health insurance program is approved.

In a second message on health submitted to

Congress, the President also emphasized a shift in policy on health education from operating subsidies to direct assistance to students. Nixon said "The nation's total supply of health professionals is becoming sufficient to meet our needs during the next decade. In fact, oversupply in the aggregate could possibly become a problem."

On controlling health costs, the president said "we must avoid the cost inflation which followed the introduction of Medicare and Medicaid. Our health insurance proposal would call for states to oversee the operation of insurance carriers and establish sound procedure for cost control. Until these or other controls are in place, I recommend that our present authorities to control health care costs be continued. I am asking the Congress for such authority." Inflationary pressures are still strong in the medical field, he said, "so that we must maintain federal controls until other measures are adopted under comprehensive health insurance."

* * *

Shortly after an AMA delegation met separately with President Nixon and Health, Education, and Welfare Department Secretary Caspar Weinberger, the latter announced he would drop the hotly contested proposed regulations that would have required pre-admission certification for the hospitalization of Medicare and Medicaid patients.

The President had assured the AMA delegation earlier in the day that serious consideration would be given to changing the controversial pre-admission certification plan.

Those visiting the President were Russell Roth, M.D., AMA President; James Sammons, M.D., Chairman of the AMA Board of Trustees; Malcolm Todd, M.D., AMA President-elect; Ernest B. Howard, M.D., AMA Executive Vice President, and Joseph Miller, Assistant Executive Vice President.

Other topics discussed by the President and the AMA group included the Administration's plan for statewide fee schedules in its national health insurance proposal and area designations for Professional Standards Review Organizations (PSRO's).

The AMA delegation told the President of their strong opposition to the pre-admission certification plan as an unwarranted interference with medical and hospital judgments; contended that continuation of fee controls on physicians would be unfair and punitive; declared that fee

schedules in a NHI program would be government regimentation; and suggested that the PSRO program needed regrouping and a new start after encountering stiff resistance from physician groups and much controversy and confusion.

The Chief Executive according to participants, warmly received the delegation and declared he was aware of the problems physicians face in the area of expanded federal supervision. President Nixon indicated serious consideration would be given to changing the requirement of area or statewide fee schedules in his NHI plan. He stressed that he wished to avoid saddling physicians with unnecessary paperwork that would take time away from patient care.

The President also talked of his desire that high level quality care be maintained. Physicians should work for patients and not the federal government, he told the delegation. He outlined his NHI program and his opposition to a bill of the scope of the Labor-Kennedy plan.

Conceding that the Administration's programs might well be amended by Congress, he invited the AMA to recommend changes in the NHI program.

* * *

The federal government will spend more than \$26 billion next fiscal year on civilian health programs if the Administration's proposed budget is approved by Congress.

The budget reflects the Administration's desire to hold health spending in the fiscal year that begins July 1 to about the level Congress approved for the current fiscal year, considerably more than requested. The exception is an unavoidable \$3 billion hike in Medicare and Medicaid outlays.

The new health budget is almost \$8 billion over the spending in the fiscal year 1973 that ended last June.

HEW Secretary Caspar Weinberger conceded that the budget reflects "in a number of ways the results of that give and take" involved in the battle with Congress last year over HEW appropriations.

No funds are sought for the Administration's new national health insurance program, even if Congress acted this year, Weinberger noted, it would take another year or longer to gear up for the program which carries a \$5.8 billion price tag.

The budget emphasized two controversial HEW programs of special interest to the medical profession. To carry out the Health Maintenance

Organization (HMO) program, \$65 million was recommended for the remainder of this fiscal year, and \$65 million for next year. The Professional Standards Review Organization (PSRO) program was put down for \$34 million through the remainder of the current fiscal year; \$58 million, next year.

medical news in tennessee

New X-Ray Diagnostic Tool At Fort Sanders Fights Cancer

Breast cancer, one of the leading causes of death in women, can now be detected in early stages by a new device at Fort Sanders Hospital. The new technique, called Xeroradiography, combines X-ray technology with the principles used in a Xerox copying machine. The Xerox 125 System can even detect tiny calcium deposits, which are tell-tale signs of early breast cancer.

The new system uses conventional X-ray techniques but substitutes a selenium plate for X-ray film. When the plate is exposed, processing is similar to copying a typical office memo on a standard Xerox copying machine. The picture image is printed on plastic-coated paper and becomes a permanent record. The technique makes it easier for radiologists to interpret the breast image and detect minute foreign bodies.

According to the American Cancer Society, breast cancer killed 33,000 women in 1973 with an estimated 74,000 new cases developing in that same year. Physicians know early detection is the best way to save more women from this killer. Currently about 90% of patients discover their condition themselves through self-examination, but by that time the cancer could have spread. Patients at this stage have a five-year survival rate of 40 to 45%, but if the cancer is detected while still localized in the breast, the survival rate is 80 to 85%. The new Xeroradiography system helps in early detection and physicians at Fort Sanders think it will save many lives.

personal news

DR. JAMES L. ALLEN, Sweetwater, has been named Citizen of the Month by the Junior Order of United American Mechanics.

DR. ROBERT C. CODDINGTON, Chattanooga, has been named associate dean of the University of Tennessee College of Medicine and director of the Clinical Education Center at Chattanooga.

DR. JAMES L. CRAIG, Chattanooga, has resigned his position as medical director for TVA to become medical director for General Mills Inc. in Minneapolis, Minn.

DR. CATHERINE GILREATH, Sevierville, has delivered her 1,000th baby at the Sevier County Hospital.

DR. L. F. LITTELL, Dayton, has received the "Man of the Year" award from the Dayton Lions Club.

DR. S. G. McNELLEY, Norris, was recognized for having served 25 years on the staff of St. Mary's Memorial Hospital.

DR. LEE W. MILFORD, Memphis, has been elected president of the American Society for Surgery of the Hand.

DR. ROBERT F. THOMAS, Sevierville, has received a presidential commendation from President Nixon for his humanitarian work during his years practicing medicine.

DR. JOE E. TITTLE, Oak Ridge, has been elected Chairman of the Board of Directors of the Tennessee Hospital Education and Research Foundation.

The following physicians have been named fellows in the American College of Physicians: DR. PETER M. DUVOISIN, Chattanooga; DR. FRANCIS F. FOUNTAIN, JR., Memphis; and DR. JEROME S. SIEGEL, Memphis.

The following physicians have been named diplomates of the American Board of Family Practice: DR. JAMES TURNER DeBERRY, Cookeville; DR. JAMES HAROLD DONNELL, Alamo; DR. BRUCE E. GALBRAITH, Tullahoma; DR. BYRON N. HULLENDER, Chattanooga; DR. B. G. NORWOOD, Fayetteville; and DR. WILLIAM H. TUCKER, Ripley.

announcements

CALENDAR OF MEETINGS

STATE

May 16 Middle Tenn. Medical Association, Vanderbilt University Club, Nashville

NATIONAL

April 20-22 American Academy of Facial Plastic & Reconstructive Surgery, The Breakers, Palm Beach, Fla.
April 21-22 American Otological Society, The Breakers, Palm Beach, Fla.
April 22-24 American Association for Thoracic Surgery, Las Vegas Hilton, Las Vegas
April 22-25 American Academy of Pediatrics, Spring Meeting, Americana Hotel, Bal Harbour, Fla.

April 23-25 American Laryngological, Rhinological & Otolological Society, The Breakers, Palm Beach, Fla.

April 25-26 AMA National Conference on Rural Health, Detroit Hilton, Detroit

April 28-May 2 Industrial Medical Association, Americana Hotel, Miami, Fla.

May 16-18 American Cancer Society's National

Conference on Childhood Cancer, Fairmont Hotel, Dallas, Texas

May 20-23 Institute of Clinical Toxicology, Marriott Motor Hotel, Houston, Texas

May 30-31 Fourth Annual Emergency Health Care Seminar, Ramada Inn, Bluegrass Convention Center, Louisville, Kentucky.

June 23-27 American Medical Association, Palmer House, Chicago, Illinois



continuing education opportunities

The continuing medical education accreditation program of TMA has full approval by AMA's Council on Medical Education. If the continuing medical education program of your hospital or medical society is accredited by TMA's committee, you may receive for your attendance at its functions Category 1 credit for the AMA Physician's Recognition Award. If you wish information as to how your hospital or society may receive accreditation, write: Director of Continuing Medical Education, Tennessee Medical Association, 112 Louise Avenue, Nashville, Tennessee 37203.

Medical College of Georgia CME Courses

Date	Title, Location
June 13-15	Internal Medicine, Buccaneer Motor Lodge, Jekyll Island, Ga.

American College of Physicians Regional Meeting

Alabama Regional Meeting, May 10-12, 1974, Point Clear, Alabama. INFO: Alwyn A. Shugerman, M.D., 1815 11th Ave., S., Birmingham, Ala. 35205

The University of Tennessee College of Medicine Schedule of Continuing Education Courses, 1974

Apr. 18-19	Leigh Buring Conference on Exceptional Children, Memphis
Apr. 29-30	Emergency Room Care, Memphis
May 10-12	Fundamentals of Clinical Otolaryngology, Memphis
May 15-18	Clinical EKG, Paris, Tenn.
May 20-24	Intensive Review of the Science of Anesthesiology, Memphis

Vanderbilt University CME Course Listings

Diabetes: 1974 April

13th Annual Seminar in Psychiatry

Central State Psychiatric Hospital; Tenn. Dept. of Mental Health; Meharry Medical College ... May

For further information contact:

Paul E. Slaton, M.D., Director

or

Marilyn Short, Administrative Associate

Vanderbilt Continuing Education

305 Medical Arts Building

Nashville, Tennessee 37212 Tel. 615-322-2716

Clinical Training Program For Practicing Physicians

Opportunities for advanced clinical education for physicians in family practice and in various subspecialties have been developed by the School of Medicine and the Division of Continuing Education of Vanderbilt University. The practicing physician, with the guidance of the participating department chairman, can plan an individualized program of one to four weeks to meet recognized needs and interests. The experience will include contact with patients, discussion with clinical and academic faculty, conferences, ward rounds, learning individual procedures, observing new surgical techniques, and access to excellent library resources. Experience in more than one discipline may be included.

Participating Departments and Divisions

Anesthesiology	Bradley E. Smith, M.D.
Medicine	Grant W. Liddle, M.D.
Cardiology	Gottlieb C. Friesinger, III, M.D.
Chest Diseases	James D. Snell, M.D.
Dermatology	Robert N. Buchanan, Jr., M.D.
Endocrinology & Diabetes	Grant W. Liddle, M.D.
Gastroenterology	Steven Schenker, M.D.
Hematology	Robert C. Hartmann, M.D.
Infectious Diseases	Zell A. McGee, M.D.
Renal Diseases	H. Earl Ginn, M.D.
Clinical Pharmacology	John A. Oates, M.D.
Neurology	Gerald M. Fenichel, M.D.
Obstetrics & Gynecology	Paul W. Griffin, M.D.
Pathology	Virgil S. LeQuire, M.D.
Pediatrics	David T. Karzon, M.D.
Psychiatry	Marc H. Hollender, M.D.

Radiology John R. Amberg, M.D.
 Surgery
 General H. William Scott, Jr., M.D.
 Neurological William F. Meacham, M.D.
 Ophthalmology James H. Elliott, M.D.
 Oral H. David Hall, D.M.D.
 Pediatric James A. O'Neill, M.D.
 Plastic John B. Lynch, M.D.
 Thoracic & Cardiac Harvey W. Bender, M.D.
 Urology Robert K. Rhamy, M.D.
 Cancer Chemotherapy .. Vernon H. Reynolds, M.D.

ELIGIBILITY: All licensed physicians are eligible.

ADMINISTRATIVE FEE: \$200.00 per week.

CREDIT: American Medical Association Physician's Recognition Award and American Academy of Family Physician's Continuing Education accreditation.

APPLICATION: For further information and application, contact:

Paul E. Slaton, M.D., Director, Continuing Education
 305 Medical Arts Building
 Nashville, TN 37212 Tel. 615-322-2716

American College of Chest Physicians Postgraduate Programs, 1974

The ACCP in co-sponsorship with leading medical schools and teaching hospitals offer physicians and surgeons a continuing education program specializing in the diagnosis and treatment of heart and lung diseases. The continuing education program for physicians sponsored by the American College of Chest Physicians has been accredited by the Council on Medical Education of the American Medical Association and is acceptable for credit toward the AMA Physician's Recognition Award.

For further information contact: Bradford W. Claxton, M. Ed., Director of Continuing Education, American College of Chest Physicians, 112 East Chestnut Street, Chicago, IL 60611.

May 23, 24—"Critical Care Medicine—The Nurse, The Therapist, The Physician," Denver, Colorado.

Symposium on Bone and Joint Radiology

The Departments of Diagnostic Radiology and Orthopaedic Surgery at the University of Kentucky Medical Center, Lexington, Kentucky, will conduct a symposium on Bone and Joint Radiology from May 1-3, 1974, immediately preceding the 100th Renewal of the Kentucky Derby. In the morning sessions a distinguished guest faculty will analyze radiographs of selected unknown cases that demonstrate differential diagnostic features of various types of bone and joint pathology. Each registrant will be sent copies of the radiographs of each case prior to the meeting. Afternoon sessions will be devoted to informal discussions between small groups of registrants and a member of the guest faculty.

For further details and an application form, write:

Ronald D. Hamilton, M.D.
 Director, Continuing Education
 College of Medicine
 University of Kentucky
 Lexington, KY 40506

Symposium on the Recent Advances In the Practical Management Of Allergic Diseases

A 3-day symposium will be held for the general medical community at a resort hotel this summer or early fall, with outstanding specialists in the field of allergy as featured speakers. A golf and tennis tournament will be held in conjunction with this symposium. Please contact:

Claude A. Frazier, M.D.
 4-C Doctors' Park
 Asheville, NC 28801

Postgraduate Symposium of Rheumatic Diseases

The 10th Annual Postgraduate Symposium on Rheumatic Diseases will be held on Thursday, May 9, 1974 in the auditorium of the Health Science Center, University of Louisville School of Medicine.

American College of Obstetricians And Gynecologists Annual Meeting

The 22nd Annual Clinical Meeting of the American College of Obstetricians and Gynecologists will be held April 29 thru May 2, 1974, Las Vegas, Nevada.

Highlights: Fifty papers on current clinical and basic investigation. The President's Program, "The Conquest of Breast Cancer." One panel will discuss the management of breast cancer (diagnosis, treatment, rehabilitation). In a second panel current concepts, etiology, pathology and research will each be a focus of an expert. These are 15 Position papers with current thinking on the more common and important problems in the specialty as seen by prominent authorities. Registration fee for non-members: \$125.00.

Contact: Mr. Donald F. Richardson, Associate Director,
 The American College of Obstetrics and
 Gynecologists,
 One East Wacker Drive
 Chicago, IL 60601

Audio-Cassette Directory Available

Many doctors rely upon audio-cassette tape-recordings for part of their continuing medical education, usually by subscribing to Audio-Digest or Accel or one of the other well-known educational services. There are, however, many other medical programs that are available on audio-cassettes, often without charge.

To aid the physician in locating these little-known but often useful programs, Cassette Information Services of Los Angeles has published its 1974 Directory of Spoken-Voice Audio-Cassettes. Although the services for the health sciences—medicine, nursing, pharmacy, dentistry, hospital administration—comprise a large portion of this 108-page directory, it lists programs in all fields and interests. These range from courses for accountants and management executives to inspirational and entertainment tapes for shut-ins. There is also a large selection of "how-to-do-it" programs, including many on such topics of interest to the physician as hypoglycemia, acupuncture and the Lamaze method of childbirth preparation.

The CIS Directory is not a catalog, but rather a compendium of program titles and subjects that can be found on audio-cassettes, a brief description of each (including price), and from whom the tape or more information may be obtained. The directory itself is available for \$5.00 from Cassette Information Services, Box 17727, Los Angeles, CA 90057.

Fourth Postgraduate Course In Head & Neck Anatomy

EAST CAROLINA UNIVERSITY
GREENVILLE, NORTH CAROLINA
May 28-31, 1974

The size of the class is limited to 16 students. All applications will be processed in the order received, and correspondence with applicants will be established promptly.

Tuition for the course is \$125; for students in residency programs, \$75. Persons wishing to apply should write for an application prior to May 1, 1974. Full payment must accompany each application, and checks should be made payable to East Carolina University.

For further information contact:

Department of Anatomy
School of Medicine
East Carolina University
Greenville, NC 27834

Tenth Postgraduate Symposium On Rheumatic Diseases

UNIVERSITY OF LOUISVILLE
SCHOOL OF MEDICINE
LOUISVILLE, KENTUCKY
May 9, 1974

The 10th Annual Symposium on Rheumatic Diseases, jointly sponsored by the University of Louisville School of Medicine and the Kentucky Chapter of the Arthritis Foundation, will be held Thursday, May 9, 1974 in the Health Sciences Center Auditorium, University of Louisville School of Medicine.

The theme of the program will be "Pathogenesis and Management." Topics will include osteoarthritis, ankylosing spondylitis, extra-articular complications of rheumatoid arthritis, systemic lupus erythematosus, gout, pseudogout, and seronegative arthritides, such as psoriatic arthritis and Reiter's syndrome.

There is no registration fee.

For additional information and a program, please contact:

Kentucky Arthritis Foundation
1381 Bardstown Road
Louisville, KY 40204

* * *

University of Kentucky Medical Center CME Courses

PRACTICAL THERAPEUTICS IN
INTERNAL MEDICINE
May 27-31, 1974

Sponsored by:

University of Kentucky College of Medicine
and the
American College of Physicians

Registration Fee: \$140 ACP Members
\$ 70 ACP Associates
\$200 Non-Members

INTERNATIONAL SYMPOSIUM ON INTESTINAL ABSORPTION AND MALABSORPTION

May 28-30, 1974

University of Kentucky Medical Center
Lexington, Kentucky

Registration Fee: \$150

For further information on any of the above, contact:

Ronald D. Hamilton, M.D.
Director, Continuing Education
College of Medicine
University of Kentucky
Lexington, KY 40506

The University of Michigan School of Public Health

The University of Michigan School of Public Health is offering a graduate program of study in Mental Retardation and Related Disabilities.

The postgraduate program is a 21 month course leading to an MPH degree and qualification in the field of Mental Retardation. Fees are regular school tuition in the School of Public Health; and terms begin in September and January.

For further information contact:

Arthur W. Fleming, M.D.
The University of Michigan
School of Public Health
Ann Arbor, MI 48104

Dermatopathology Symposium

A three-day "Dermatopathology" symposium directed by Dr. A. Bernard Ackerman and sponsored by the departments of dermatology and pathology of New York University School of Medicine will be held on Oct. 7, 8, 9, 1974, in Alumni Hall, New York University Medical Center, 550 First Avenue, Manhattan.

The faculty includes: Drs. William Caro, Wallace Clark, Jr., Robert Freeman, Robert Goltz, Fred Gorstein, James Graham, George Ioannides, John Knox, Raffael Lattes, Herbert Lund, Hermann Pinkus, Daniel Richfield, Arkadi Rywlin, Lewis Shapiro, David Silvers, Richard Winkelmann and Ackerman.

The presentations will include all aspects of cutaneous pathology: inflammation, neoplasia, malformations and depositions. The emphasis in this symposium will be on mechanics of skin diseases, elucidating concepts about pathological processes, in addition to careful gross and microscopic pathologic correlations. The aim is to bring a fresh approach to understanding dermatopathology.

For detailed information inquire at the Office of the Recorder, New York University Post-Graduate Medical School, 550 First Avenue, New York, NY 10016.

D-I-A-L A-C-C-E-S-S S-Y-S-T-E-M

- WHAT?** A valuable cancer education service through toll-free telephone calls that bring the most recent diagnostic and therapeutic information on specific neoplastic disease problems.
- WHERE?** In the Southern Medical Association area through co-sponsorship of The University of Texas System Cancer Center.
- WHEN?** Monday-Friday, 8:00 a.m. to 7:00 p.m., CDT; Saturday, 8:00 a.m. to 11:00 a.m., CDT.

For telephone numbers, list of specific topics, and procedures:

Write: Southern Medical Association
2601 Highland Avenue
Birmingham, Alabama 35205

Ask for *DIAL ACCESS SYSTEM* catalogue.

20th Annual OB-GYN Seminar

The 20th Annual OB-GYN Seminar will be held again this year in Asheville, North Carolina at the Grove Park Inn, July 21 through July 26.

A wide variety of subjects in obstetrics and gynecology will be presented and program participation will include the medical schools of North Carolina, Duke, Bowman Gray and the Medical College of Virginia, in addition to outstanding speakers from other areas.

For registration information, please contact the Secretary, Dr. George T. Schneider, 1514 Jefferson Highway, New Orleans, Louisiana (Jefferson) 70121.

Diabetes-Endocrinology Center At Vanderbilt Offers Tests

As a service to Middle Tennessee's practicing physicians and research scientists, Vanderbilt's Diabetes-Endocrinology Center is now able to provide certain diabetes-related diagnostic assays and tests through its newly established Diabetes Service and Research Support Laboratory, Room A-5203, in the Vanderbilt Medical Center.

Although this laboratory is "sponsored" by the Center, it is not supported by the Center's federal research funds and must, therefore, make modest charges for its services both to the Center's investigators and to physicians and researchers who are not directly affiliated with the Center.

For additional information, please call (615) 322-2197 or, at night, (615) 356-5397.

Scientific Meetings on Digestive Diseases

Five societies representing physicians and surgeons in the gastroenterological sciences will join together in a week-long series of meetings and study sessions in San Francisco, Calif., May 19-25, 1974. The meetings will include two postgraduate courses (the American Gastroenterological Association course on Peptic Ulcer Disease, May 19-20 and the American Society for Gastrointestinal Endoscopy course on Gastrointestinal Endoscopy, May 20-21) plus scientific meetings and lectures, May 21-25.

The Society for Surgery of the Alimentary Tract will hold scientific sessions on May 21. On May 22, registrants will attend sessions sponsored by the Society for Surgery of the Alimentary Tract, the American Society for Gastrointestinal Endoscopy and the Gastroenterology Research Group. The Gastroenterology Research Group will join with the American Association for the Study of Liver Diseases on May 23 for a Symposium. Endoscopic Workshops will also be held that day.

On May 24 and 25, the American Gastroenterological Association will present Clinical Symposia and a half-day Plenary Session.

The week's activities are open to all physicians and surgeons. All sessions will be at the San Francisco Hilton Hotel.

More information may be obtained from the American Gastroenterological Association, 6900 Grove Road, Thorofare, New Jersey 08086.

AMA To Sponsor Fourth Hemisphere Nutrition Conference

The economics of food production in a world forced to establish priorities for limited supplies of energy will be a major theme of the Fourth Western Hemisphere Nutrition Congress Aug. 19-22 in Bal Harbour, Fla.

Some one thousand authorities on nutrition, medicine, food science and technology, agriculture, and economic development from 25 nations will seek to develop food and agricultural policies for the Western Hemisphere during the four-day Congress.

The meeting is organized by the Council on Foods and Nutrition of the American Medical Association and The American Institute of Nutrition, in cooperation with the Nutrition Society of Canada and La Sociedad Latinoamericana de Nutricion.

The 1974 Congress will feature continuing education sessions for nutritionists to provide an update of information for those who deal with malnutrition as it relates to disease. Malnutrition lowers resistance, and the processes involved and possible means of combating the problem will be aired.

The opening plenary session of the Congress will include presentations on coordinating food production with human needs, influence of international financial policies on foods and nutrition, and agriculture and energy balance.

Other sessions will air such topics as minerals in nutrition, food and the environment, fat-soluble vitamins, perinatal nutrition, new developments in clinical nutrition, food design and consumer needs, and new and unusual foods.

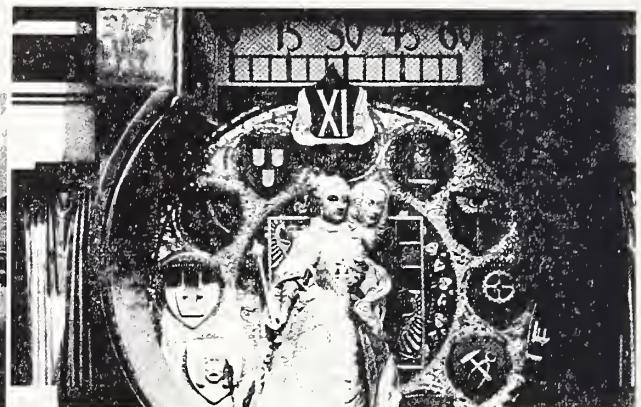
The closing plenary session will hear a forecast of scientific developments, economic and resource trends, and mobilizing of society to responsible action. Another segment of the Congress will deal with nutritional excesses, such as over-dosing with vitamins and high protein diets.

Additional information on the Congress is available from the Department of Foods and Nutrition, American Medical Association, 535 N. Dearborn St., Chicago, IL 60610.

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If you do, read no further. But, if you no longer want to be envious of your colleague's casual ability to spout the initials standing for the various programs, government agencies, and private organizations in the medical field, this short course in medical acronyms should help you overcome that feeling of inferiority.

The full names in themselves explain why initials are used, just as they explain the use of SGOT and BUN instead of serum glutamic oxalocetic transaminase and blood urea nitrogen.

That's why we also write *Med-Chi* or *Faculty* instead of writing out Medical and Chirurgical Faculty of the State of Maryland all the time.

The list that follows is by no means complete; rather, it should be considered as a "primer."

After you have mastered this basic course, you may want to suggest additional acronyms to add to the list. Or, if you need additional help, our own Faculty library may be able to assist you.

LESTER H. MILES
Managing Editor

A

AABB	American Association of Blood Banks
AAFMC	American Association of Foundations for Medical Care
AAFP	American Academy of Family Physicians
AAMA	American Association of Medical Assistants
AAMC	American Association of Medical Colleges
AAMI	Association for the Advancement of Medical Instrumentation
AAP	American Academy of Pediatrics
AAPS	Association of American Physicians and Surgeons
ACEP	American College of Emergency Physicians
ACG	American College of Gastroenterology
ACOG	American College of Gynecology
ACP	American College of Physicians

ACR	American College of Radiology
ACS	American Cancer Society, American College of Surgeons
ADA	American Dental Association, American Diabetes Association
AFPD	American Federation of Physicians and Dentists
AHA	American Heart Association, American Hospital Association
ALA	American Lung Association
ALAM	American Lung Association of Maryland
AMA	American Medical Association (not to be confused with the American Ministerial Association, American Management Association, American Monument Association, American Motorcycle Association and many others)
AMA-ERF	American Medical Association Educational Research Fund
AMPAC	American Medical Political Action Committee
AMRA	American Medical Records Association
APA	American Psychiatric Association
APG	American Physicians Guild
APHA	American Public Health Association
ARC	American Red Cross
ASA	American Society of Anesthesiologists
ASCC	American Society for Colposcopy and Colpomicroscopy
ASTR	American Society of Therapeutic Radiologists

B

BC/BS	Blue Cross/Blue Shield or "The Blues"
BHI	Bureau of Health Insurance
BNDD	Bureau of Narcotics and Dangerous Drugs

C

CDC	Center for Disease Control
CHPA	Comprehensive Health Planning Agency, Commission on Professional and Hospital Activities
CHAMP	Certified Hospital Admission Monitoring Program
CHAMPUS	Civilian Health and Medical Program of the Uniformed Services
CPHA	Commission on Professional and Hospital Activities
CME	Continuing Medical Education
CPT	Current Procedural Terminology

D

DPW	Department of Public Welfare
-----	------------------------------

E

ECFMG	Educational Council for Foreign Medical Graduates
EMCRO	Experimental Medical Care Review Organizations
EMS	Emergency Medical Services

F

FDA	Food and Drug Administration
-----	------------------------------

G

H

HASP	Hospital Admission Surveillance Program
HAVES	Hearing and Vision Early Screening
HCAS	Hospital Cost Analysis Service
HDS	Health Data Service
HEW	Department of Health, Education, and Welfare
HIS	Health Interview Survey (NIH), Hospital Information System
HMO	Health Maintenance Organization
HSMHA	Health Services and Mental Health Administration
HUP	Hospital Utilization Project

I

ICDA	International Classification of Diseases, Adapted
ICHHD	Inter-Society Commission for Heart Disease
IVNA	Instructive Visiting Nurses Association

J

JCAH	Joint Commission on Accreditation of Hospitals
------	--

K

L

M

MAC	Medical Advisory Committee
MAP	Medical Assistance Program, Medical Audit Program
MECO	Medical Education Community Orientation
MEDLARS	Medical Literature Analysis and Retrieval System
MEDLINE	MEDLARS-online
MERC	Medical Education Resource Center

N

NCHS	National Center for Health Statistics
NCI	National Cancer Institute
NEI	National Eye Institute
NFSID	National Foundation for Sudden Infant Death
NIAID	National Institute of Allergy and Infectious Diseases
NIAMD	National Institute of Arthritis and Metabolic Diseases
NHLI	National Heart and Lung Institute
NIH	National Institutes of Health
NIMH	National Institute of Mental Health

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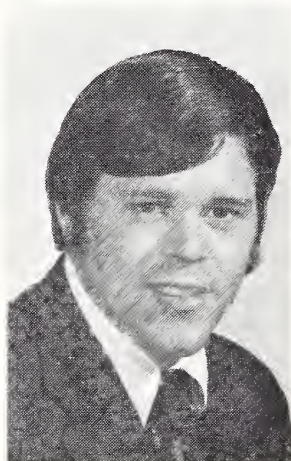
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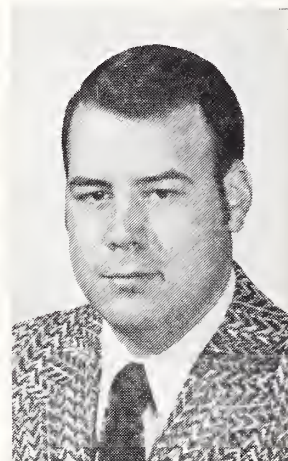
Will Gargis



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These men bring you ...



NLM National Library of Medicine
NMA National Medical Association

O

OEO Office of Economic Opportunity

P

PAC Political Action Committee
PAS Professional Activities Study
PAT Pre-Admission Testing
PDUR Pre-Discharge Utilization Review
PFP Prevailing Fee Plan (Blue Shield)
PLI Professional Liability Insurance
PHS Public Health Service
PNHSA Physicians National House Staff Association
PSRO Professional Standards Review Organization

Q

QAP Quality Assurance Program

R

RAG Regional Advisory Group (see MRMP)
RMP Regional Medical Program
RMPS Regional Medical Programs Service

RPC Regional Planning Council
RSC Regional Steering Committee

S

SMSA Standard Metropolitan Statistical Area
SSA Social Security Administration

T

U

UCR Usual, Customary, Reasonable
UPT Uniform Procedural Terminology
UR Utilization Review
USPHS United States Public Health Service
VA Veterans Administration
VASC Verbal Auditory Screening for Children

V

W

WHO World Health Organization

X-Y-Z

Reprinted from the *Maryland State Medical Journal*,
Jan., 1974

(reference to specifically Maryland organizations deleted—Ed.)

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should be administered with caution to patients with cardiovascular disease; development of chest pains or other aggravations of cardiovascular disease requires a reduction in dosage.

Contraindications: Thyrotoxicosis, acute myocardial infarction. **Side effects:** The effects of SYNTHROID (sodium levothyroxine) therapy are in being manifested. Side effects, when they occur, are secondary to increased rates of metabolism; sweating, heart palpitations or without pain, leg cramps, and weight loss. Diarrhea, vomiting, and nervousness have been observed. Myxedematous patients with heart disease have died from abrupt increase in dosage of thyroid drugs. Careful observation of the patient during the beginning of any thyroid therapy will alert the physician to any untoward effects.



special
item

The Sign Says 'Danger'— But Then, Who Cares?

He'd no doubt deny it if someone called him a hero—or a fool. He just did what he felt had to be done; he couldn't help himself. So he went ahead despite the obvious danger, facing the flame, the heat, the noxious gas . . . felt the searing of his very insides. But curiously, at the same time, his skin was getting colder.

Now as he pushed on, dodging the flying spark and ash, his heart beat faster, the muscle contracting with greater force, and his chest began to hurt. No matter—still he went ahead. The destructive effects were getting to the sensitive lining of his nose now although, mercifully, he didn't know that within his blood vessels little particles were starting to circulate, later to settle on the artery walls like rust in a pipe. His lungs revealed their agony by forcing him to cough violently. But now . . . now it was just a little more, just a little way to go and it would be over. . . .

He made it. A deep, clean breath now. Oh, man! He could hardly wait for that next cigarette.

If you think the forest fire-like scene described above is an exaggeration of the effects of cigarette smoking, be assured that it is not—albeit a little dramatized. All those things can and do happen and the worst effects weren't even mentioned: death from lung cancer. Or death or disability from emphysema. Or chronic bronchitis. Quite a grim message, isn't it?

Unfortunately, Americans aren't getting it. They just won't get off their butts.

Ten years after the U.S. Surgeon General's report on the hazards of cigarette smoking, cigarette sales are at a record high, with 583 billion cigarettes smoked annually. That compares with 524 billion a decade ago.

Grisly pictures of blackened lungs, poster warnings, newspaper and broadcast messages, and even warnings on the cigarette packs themselves—in spite of all this, the number of cigarette smokers has risen to 52 million, or two million more than when the Surgeon General's report came out in 1964.

However, millions of Americans *have* quit smoking. Among them are many physicians.

One recent survey showed that 82% of doctors sampled who had ever smoked cigarettes have tried giving up, and 68% were successful.

Maybe it's their own literature that influences them. For example, in the 1972 *Index Medicus*—which lists the world's medical literature—there are roughly three entire pages of fine print just listing *titles* of articles dealing with the effects of smoking. So smoking peril is not exactly a news bulletin to doctors.

"Ten years ago, when I was president of the American Thoracic Society, we had a committee studying smoking effects and came up with the same findings as the Surgeon General's study," recalls William R. Barclay, M.D., assistant executive vice president of the American Medical Association.

"There was just no question in the minds of physicians who had studied the matter that there was a strong correlation between smoking cigarettes and lung cancer, related to the number smoked and for how long." Dr. Barclay has seen a lot of smokers come and go—including many who went for good at a rather young age. He himself does not smoke.

Even though there is still some controversy over whether smoking does all the things it is alleged to do, why haven't more people quit cigarettes? And can anything more be done to persuade them to do so? In Dr. Barclay's view:

"I think every person has to make his own judgment about what is important to him or her in life. It is the doctor's duty to inform the patient of peril. There are people who simply don't want to live without smoking—or drinking, for that matter."

One of those was a patient of Dr. Barclay's, a man with emphysema. "He was in a research group so we saw him quite frequently," Dr. Barclay said. "One morning we walked in on rounds and found him sitting in a chair, with a cigarette in his hand and a smile on his face—and he was dead."

As a physician who has advised numerous patients to quit smoking, Dr. Barclay says tablets or other drugstore preparations which are supposed to help you quit smoking, don't really. "The only way to give up smoking is to determine you're going to give it up," he said. "Don't try to 'cut down.' Some people say they feel better if they at least have cigarettes available, lying around or in their pockets. Perhaps so. But you must just quit."

Although there isn't much more to be added

to all the anti-cigarette warnings given, let it be said that lung cancer is the deadliest type of that deadly disease. The highest percentage of cancer deaths in men—31%—is from lung cancer. It is not quite that bad in women yet—accounting for 10% of the deaths—but more and more women are getting lung cancer. And the survival rate of lung cancer patients is the lowest for all cancers, a meager 9% when the tumor has spread. Even when it has not spread the 5-year survival rate is only 29%.

One of the most chilling features about lung cancer is that by the time patients go to a physician it is usually too late. That's because the most prominent symptom is a hacking cough—and as every cigarette smoker knows, that's an

old companion. Chest pain begins when the malignancy invades the pleura. By then things look pretty grim.

"Roughly one third of the lung cancer cases a physician sees will be so far advanced that there is no point in doing anything," he said. "Another one third may justify operation, but when you do exploratory surgery you find that it is futile. So that leaves one third on which you attempt to do some surgery. Of that number, about 20% will survive five years. So of all lung cancer patients, about 6% will survive.

"Those are pretty tough odds."

* * *

(AMA News Features—American Medical Association)

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*PSRO- What It Is, How It Works and What The AMA Is Doing About It**

BLAND W. CANNON, M.D.†

Professional Standards Review Organization—PSRO was signed into law on October 30, 1972. While there is always an urge to express concern about the enactment of major legislation affecting the health field, such as Medicare, Medicaid, Comprehensive Health Planning, and Regional Medical Programs, it nevertheless seems likely that the impact of PSRO on the practice of medicine will be as great or greater than any law ever passed.

Consequently, let us now review what a PSRO is, how it will be structured, and how it might operate.

The purpose of the PSRO law is to create a nationwide network of physician groups to review medical services provided in institutions that are paid for under the provisions of the Social Security Act. From now until January 1, 1976, the law defines a PSRO as a non-profit professional association or component organization with the following characteristics:

1. It must be composed of licensed M.D.'s and D.O.'s engaged in practice.
2. It must have as members a substantial proportion of the practicing physicians in the area.
3. It must maintain membership on a voluntary basis without restriction or dues.
4. It must be organized to allow for the review of medical services provided under the Social Security Act.

If, after January 1, 1976, no physician-controlled

PSRO has been established for a particular area, the Department of HEW can designate some "other" organization to assume the PSRO's responsibility, that is, a public, non-profit, or private agency which could perform PSRO functions. i.e., Blue Cross-Blue Shield plans, state or local departments of health, welfare rights organizations, etc.

In reviewing medical services, a PSRO must determine three things:

1. Necessity of the services.
2. The quality of the services.
3. The appropriateness of the facility.

To establish a basis for this evaluation, each PSRO must use professionally constructed "norms" of care, diagnosis, and treatment, that are based on typical patterns of practice in its region, including the length of stay for institutional care for specified illnesses.

Although the PSRO has the *Legal responsibility* to review medical care paid for under the Social Security Act and provided within its boundaries, the PSRO *may* accept decisions from hospital and institutional peer review committees, as long as those committees conform to the law and utilize the norms established by the local PSRO. Although PSRO does not make payments for services, it does have the authority to approve or disapprove payment and, consequently, has the fiscal authority to enforce its decisions.

The organizational structure of a PSRO is not described in the law, and regulations under the law, dealing with the organizational structure, have not yet been developed. The law did require the Department of Health, Education and Welfare to designate PSRO areas prior to January 1, 1974, which it has done, and to be pre-

* Read before the Southeastern Neurosurgical Assembly, Atlanta, Ga., March 16, 1973.

† Member of AMA Advisory Council on Medical Education, and Vice-Chancellor for Academic Affairs, University of Tennessee College of Medicine, Memphis, Tenn.

pared to accept, soon thereafter, applications from organizations in a designated area wishing to become a PSRO. Consequently, PSRO organizational and operational information should be available soon. (*They were, as of April 1—Ed.*)

Those states containing three or more PSRO units are required to form a State PSRO Council which will include consumers as well as physicians to review the effectiveness of local PSRO's. The composition of the State Council as spelled out in the law provides for:

1. Representatives from, and designated by, each PSRO in the state.
2. Four physicians, two of whom can be designated by the State Medical Society and two of whom can be designated by the State Hospital Association.
3. Four persons knowledgeable in health care from the state whom the Secretary of HEW will select as representatives of the public, at least two of whom will have been recommended by the Governor of the State.

The most important functions of the statewide PSRO Review Councils are to:

1. Coordinate and disseminate information and data to PSRO's within the state.
2. Assist the Secretary of HEW in the development of uniform data gathering and operating procedures.
3. Assure efficient operation and objective evaluation of the PSRO's within the state.
4. Assist the Secretary in evaluating the performance of each PSRO.
5. Where the Secretary finds it necessary to replace a PSRO, assist him in developing and arranging for a qualified replacement.

The law also provides for a National Professional Standards Review Council which has been appointed by the Secretary of HEW and held its first meeting on July 9, 1973. The Committee, shown here, consists of eleven physicians:

1. Clement R. Brown, M.D., Director of Medical Education, Mercy Hospital, Chicago
2. Ruth M. Covell, M.D., assistant to the dean, U. of California at San Diego School of Medicine
3. Merlin K. Duval, M.D., Vice-President for Health Sciences, U. of Arizona, Tucson, and former assistant HEW secretary for health
4. Thomas J. Green, M.D., surgeon, Detroit
5. Robert J. Haggerty, M.D., Professor of

Pediatrics, U. of Rochester (N.Y.) School of Medicine

6. Donald C. Harrington, M.D., Medical Director, San Joaquin Foundation for Medical Care, Stockton, California
7. Robert B. Hunter, M.D., family practitioner, Sedro Woolley, Washington, member of the AMA Board of Trustees and chairman of the AMA's Ad Hoc PSRO Advisory Committee
8. Alan R. Helson, M.D., internist, Salt Lake City, and alternate delegate to the AMA
9. Raymond J. Saloom, D.O., Harrisville, Pennsylvania
10. Ernest W. Seward, M.D., Professor of Social Medicine, U. of Rochester School of Medicine (Chairman)
11. Willard C. Scrivner, M.D., obstetrician-gynecologist, Belleville, Illinois, and President of the Illinois State Medical Society.

The functions of the National Professional Standards Review Council are to:

1. Advise the Secretary on the administration of the program
2. Provide for the development and distribution of information and data that will assist State PSRO Councils and individual PSRO's in carrying out their functions.
3. Review PSRO operations in order to determine their effectiveness and comparative performance in carrying out the purposes of the program.
4. Make studies and investigations so as to develop recommendations to the Secretary and the Congress on measures to more effectively accomplish the purpose and objectives of the program.

Because of PSRO's potential to dramatically affect the practice of medicine, the American Medical Association's House of Delegates promptly adopted a report at its Clinical Meeting in November of 1972 that called for the AMA to provide a leadership role in the development and implementation of PSRO's. This action was taken to assure, to the greatest degree possible, that the law would be implemented in a way that would be least disruptive to the practice of good medicine.

Accordingly, an AMA Advisory Committee on Professional Standards Review Organizations was established and given the mission of making recommendations concerning appropriate association involvement in PSRO implementation. The

function of the AMA Advisory Committee on PSRO is:

1. Assist in the designation of PSRO areas.
2. Develop recommended rules and regulations concerning PSRO's.
3. Coordinate the development of guidelines for determining the quality of medical care.
4. Establish prototype PSRO's.
5. Give administrative support by assisting in PSRO formation, training personnel for PSRO operation, assess the legal requirements for PSRO's, and identify the data gathering, processing and storage needs.

The AMA Advisory Committee is made up of representatives from:

1. AMA Board of Trustees
2. Council on Legislation
3. Council on Medical Education
4. Council on Medical Service
5. House of Delegates
6. Interspecialty Council
7. Intern and Resident Business Section
8. American Association of Foundations for Medical Care
9. American Dental Association
10. American Hospital Association
11. American Nursing Home Association
12. Blue Cross Association
13. Health Insurance Association of America
14. National Association of Blue Shield Plans
15. National Medical Association
16. And, as an observer, The American Osteopathic Association

The Advisory Committee held its first organizational meeting on January 12, 1973 and agreed to organize eight working task forces to consider:

1. Communications and Education
2. Geographic Areas
3. Guidelines of Care
4. Models and Prototypes
5. Rules and Regulations
6. Structure and Organization
7. Evaluation of Programs
8. Data Collection, Processing and Storage

All task forces have now been organized and have held many meetings.

The Task Force on *Geographic Areas* has recommended a flexible and pragmatic approach to designating PSRO areas that would use existing resources and permit statewide PSRO's. Its recommendation was supported by the National Professional Standards Review Council, but generally ignored by HEW.

The Task Force on *Guidelines of Care* is work-

ing with national specialty societies to develop criteria of care for the most common diseases in each specialty for adaptation at the local level.

The Task Force on *Models and Prototypes* has developed a position paper on the minimal elements of a PSRO.

The Task Force on *Rules and Regulations* has reviewed all important sections of the PSRO Law and has offered suggested interpretations to HEW.

The Task Force on *Structure and Organization* has developed a manual which suggests methods of structuring and organizing PSRO's to the extent that structure and organization can be determined at this time.

The Task Force on *Evaluation of Programs* has developed general recommendations for evaluation of the PSRO program and must now wait until the Federal administrative structure has been defined, regulations developed, and operating programs proposed before proceeding forward.

The Task Force on *Data Collection, Processing and Storage* has made general recommendations which emphasize the protection of confidentiality and the development of data that will help assure the quality of medical care. It has also outlined a minimum data set, which includes information necessary to identify and review cases.

By December, 1973, the House of Delegates approved Report EE which has since been interpreted by the Board of Trustees to direct the Association to assess the viability of an effort to repeal the PSRO law (currently not very viable) and to continue to exert effort to influence PSRO's implementation in the best interest of patients and physicians as long as it is a law.

Although the Department of Health, Education and Welfare has been working hard to establish the organization structures needed, define their function and obtain competent staff, many of the organizational sub-units still have not been established or staffed. On July 12, 1973 the Assistant Secretary for Health established a Bureau of Quality Assurance within the new Health Services Administration. The bureau will be responsible for PSRO development under the leadership of the Office of Professional Standards Review. The Office of Professional Standards Review, directed by Henry Simmons, M.D., however is directly under the Assistant Secretary for Health and will report directly to him. This is because the Assistant Secretary for Health feels that the need for effective coordination of PSRO

policy planning and implementation is so great and so important that it merits his direct involvement.

The functions of the Office of Professional Standards Review are:

1. Provide liaison with major health care organizations on PSRO.
2. Provide administrative staff support to National PSRO Council.
3. Advise the Assistant Secretary for Health on PSRO planning and policy formulation.
4. Provide leadership and guidance to the Department's activities.
5. Establish criteria and guidelines for PSRO program evaluation.
6. Carry out professional relations on PSRO with the medical community.

Now, with the law summarized, HEW's administrative structure outlined, and the AMA's involvement highlighted, it might be interesting to briefly discuss the operating procedure of the PSRO's generally acknowledged prototype, the Foundation for Medical Care. Through this exercise one might begin to get an idea of how a PSRO might operate.

The review procedure for a Foundation might require a physician who has historically abused his admitting privilege to receive a pre-admission certification prior to any elective hospital admission or within twenty-four hours of emergency admission. Basically, the pre-admission certification procedure would simply confirm that a given patient with given symptoms requires hospitalization according to admitting criteria, agreed upon by the Foundation members. Those physicians who have not abused admitting privileges are not required to participate in the pre-admission certification program.

A *program coordinator*, usually a nurse, conducts the pre-admission certification program and *can only approve a physician's request to admit*. If the physician's criteria for admitting a patient deviates from the Foundation's criteria, the program coordinator must consult the hospital's medical advisor, a physician staff member. The *medical advisor* can approve any admitting request made by a physician regardless of the criteria. However, if the medical advisor cannot approve his fellow physician's request to admit, the hospital *utilization review committee* is consulted. If the individual physician is unhappy with the utilization review committee's decision, he can appeal the decision to the Board of Directors of the Foundation.

The program coordinator and medical advisor working under the direction of the utilization review committee might also conduct the Foundation's *concurrent review program*. Under the concurrent review program, all inpatient care is monitored by the program coordinator at appropriate intervals while the patient is in the hospital according to criteria agreed upon by the Foundation members. When the hospital chart indicates that the management of an individual case deviates from the agreed upon criteria, the medical advisor is so informed. He can approve any deviation. The utilization review committee is only consulted when an individual physician is unwilling to accept the opinion of the medical advisor. Again, the individual physician has the right to appeal his case to the Foundation's Board of Directors.

Apart from the pre-admission certification program and the concurrent review program, a Foundation also might conduct a retrospective review program based upon an audit of the medical record or an expanded insurance claim form. Retrospective review is designed to indicate practice patterns of individual physicians, individual specialties, individual hospital staffs, and the general medical community. Profiles are reviewed on a continuous basis in an effort to modify, through continuing medical education, certain practice patterns which have been deemed by the physician Foundation members themselves to be inappropriate or unacceptable.

To those members of the medical profession who have ignored the rising cost of government supported medical programs, the growth of the Foundation for Medical Care movement, the increase in concern for the high cost of private health insurance premiums, the growing support for accountability in all professions, and the decline of public trust in all institutions, but who have steadfastly provided the finest medical care possible at a fair price; the enactment of PSRO must be inconceivable.

Nevertheless, it is time to realize "What government buys, government controls." Consequently, with the Federal government currently buying over 14 billion dollars of medical care a year and planning to spend even more under a national health insurance system, government control of medical care is inevitable. To prove this point, physicians should be aware that apart from PSRO, the Federal government currently has the legal authority under a variety of laws to cut off Medicare payments for inpatient hospital

service at the 20th day in a hospital where there is a substantial failure to make timely review of long stay cases; to send a review team made up of all types of health professionals and consumers to review any case paid for with Social Security funds when a physician or provider is suspected of misrepresentation, overcharging, or providing unnecessary or inferior services; and to reduce financial assistance under Medicaid to institutions for certain long term cases unless the state government has initiated a utilization review procedure. (See Editorial and Letter to Editor on PSRO.—Ed.)

Consequently, it would appear the individual physician has until January 1, 1976 to ask some very difficult questions:

Should I accept payment from the Medicare, Medicaid, and Maternal and Child Health Programs and quite possibly a National Health Insurance system? If yes, am I willing to have my services reviewed by my fellow physicians

under the authority of a PSRO? If no, can I continue to meet the needs of my patients and maintain a viable medical practice?

There are no easy answers.

Whatever you feel about PSRO, it does present the profession with a continuing medical education challenge and opportunity that it probably should not fail to accept. From my experience as a member of the American Medical Association Council on Medical Education, I know how important it is that physicians and their medical organizations establish continuing medical education programs that will correct the deficiencies identified by PSRO's and keep physicians up to date. The American Medical Association Physician's Recognition Award is a voluntary program sponsored by the AMA which serves the profession by documenting physician participation in continuing medical education. The fact of documentation can be vital in resisting further intrusion by government into the practice of medicine.

* * *

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Tennessee's Physician Shortage: *The Answer is not more Medical Students*

MICHAEL ZUBKOFF, Ph.D., EDWARD DELL, M.A., and JACQUELINE SHRAGO, B.A.

Again this year there is much debate concerning the establishment of a new medical school in Eastern Tennessee at Johnson City. The problem which initially prompted the medical school controversy last year is unchanged. Tennessee is suffering from a shortage of physicians, the situation being most acute in the rural portions of our state.

The concept behind the building of a new medical school center assumes that if more physicians were educated and graduated in Tennessee then more would stay and establish practices. At the present time, Tennessee retains relatively few of the physicians it graduates. For instance, in 1967 over 9,000 physicians educated in Tennessee were still practicing medicine; however, only 30% were practicing in Tennessee.¹ The Tennessee Higher Education Commission (THEC) study on medical education in the state, and the subsequent study recommended by Governor Winfield Dunn, recommended that to overcome the physician shortage, Tennessee should adopt for 1980 a goal to achieve the physician-population ratio which existed as the national average in 1967,¹ 132 physicians per 100,000 population. Tennessee ranked 33rd in the nation with a ratio of 104 per 100,000.² To meet this goal by 1980, THEC claims that an additional 3,400 physicians must be added to Tennessee's medical roster.

How will this be achieved? We do not believe expansion of the graduate facilities are the answer to the problem, but do support the recommendation made by both studies to establish clinical training centers throughout Tennessee. A recent study showed that enrollment in post-graduate training centers is more correlated with a higher physician-population ratio than is medical-school enrollment. Another factor which is highly correlated with the physician-population ratio is the socio-economic conditions existing in a state. A variable which also directly affects this ratio is the number of foreign trained physicians practicing in a state. Both major studies on medical

education and the shortage of physicians in Tennessee failed to examine Tennessee's substantial lack of foreign trained physicians relative to other states.

At one time, Tennessee maintained strict initial licensure requirements for foreign trained physicians. These discriminatory laws were successful in keeping foreign physicians out of the state. Recently, the licensure requirements have been changed, yet Tennessee is still unable to attract its share of foreign trained physicians.

TENNESSEE'S SHORTAGE OF PHYSICIANS AND WHAT IT MEANS

In 1970 there were 4,658 non-federal physicians in Tennessee. If inactive physicians, medical-school faculty, administrators, and research scientists are excluded, there were 4,017 physicians "providing patient care."³ During 1970 there was a .16% increase in non-federal patient care physician-population ratio in the United States from 125.1 to 125.3 physicians per 100,000, but during the same period the ratio in Tennessee decreased 1.5%.⁴

Despite the state's persistently low physician-population ratio, Tennessee medical schools continue to educate and graduate more physicians than most other states. The combined enrollment for the ten-year period, 1959-1968, resulted in an annual average of 32.7 medical students per 1,000,000, which gave Tennessee a rank of fourth highest among all states. In 1969-1970, Tennessee graduated 280 physicians from its three schools; only 9 states graduated more physicians during that year. From 1959-1968 the average number of Tennessee residents who entered medical school amounted to 5.14 per 100,000, giving Tennessee a rank of thirteenth among the 50 states and the District of Columbia.⁵ By 1970 this had increased to 5.4 per 100,000, as compared to the national average of 5.1. Despite the high enrollment figures, Tennessee is classified as a "creditor" state, defined as a state that issues fewer medical licenses than the number of residents of the state who had entered medical school five years earlier. There are only seven states with a higher creditor rating than Tennessee.¹

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In terms of continuing to attract students into medical school Tennessee ranked twelfth in the nation in 1971 for the absolute number of entering students and tenth in relation to its population size, 41 percent of these being non-residents of the state.⁶

As a creditor state, Tennessee consistently graduates many more physicians than it grants licenses. For example, in 1967, 240 students were graduated from Tennessee medical schools but only 88 new physicians were licensed, a ratio of 2.72 graduates per each new Tennessee physician. In 1968, there were 240 graduates and only 131 new physicians, a ratio of 1.89;⁶ in both years only one other state had a higher ratio (Georgia in 1967 and Illinois in 1968). In 1970, 280 medical students were graduated and 179 licenses were issued, for a ratio of 1.56. Apparently Tennessee is viewed as a much better place to go to medical school than it is as a place to practice medicine.

Tennessee's rural communities suffer the worst from the state's low physician-population ratio. If one were to exclude the urbanized counties of Shelby, Davidson, Hamilton and Knox, the state physician-population ratio would fall to 84 per 100,000. If three more counties, Madison, Sullivan and Washington, were also deleted, the ratio would fall to 51 per 100,000 for the remaining 88 counties. This amounts to one physician for every 2,000 persons. In 1970 seven counties had only one practicing physician while thirteen others had no more than two. There were eight counties in which there were more than 5,000 persons per physician.¹ The accepted AMA standard is 1.5 physicians per 1,000 persons. In general as one moves west to east across the state, the physician-population ratio declines.

Persons living in rural communities do not have adequate availability or accessibility to modern health care. The distribution of physicians is such that the rural areas have an insufficient number of physicians while the urban areas have an above average supply. As always seems to be the case, those counties with the lowest per capita incomes and the highest population of poor have the fewest physicians.

MORE MEDICAL SCHOOLS VERSUS MORE GRADUATE PROGRAMS

The Tennessee Higher Education Commission and Governor Dunn's study recommend that

there be an increase in the enrollment of the entering classes of the University of Tennessee College of Medicine at Memphis by 40 students per year, with fewer out-of-state students, and that the state should contract with Vanderbilt University and Meharry Medical College to support the admission of ten additional Tennessee students per year at each school. This would increase Tennessee's physician-population ratio in that even though a minority of state graduates remain in the state, those who do remain constitute a majority of the practicing Tennessee physicians. At the end of 1967, 61% of all physicians practicing in the state were graduates of Tennessee schools. Analysis shows, however, that there is no general relationship between the number of Tennessee residents per 100,000 who enter medical school and the physician ratio. To determine the exact extent of the relationship, the Spearman rank correlation was applied to the two variables for the period 1959 to 1968. The rank correlation was computed to be 0.09.⁷ Therefore, states that send a high proportion of their residents to medical school are no more likely to have a high physician ratio than states that send a low proportion. Tennessee is no exception to the general principle. Results clearly indicate that programs designed to encourage more state residents to enter medical school are not likely to increase the state's physician-population ratio.

Tennessee is blessed with three medical schools. The combined enrollment for the ten year period, 1959-1968, gave the state an annual average of 32.7 medical students per 100,000 population. The analysis of the relationship between medical student (all students, Tennessee residents and out-of-state students) enrollment and the physician-population ratio is complicated, because several states do not have any medical schools, and in several other states, schools have been introduced during the last few years. However, for all states and the District of Columbia, the rank correlation between the annual average number of medical students per 100,000 and the 1955-1968 physician ratios was only 0.39. Thus a state's medical school enrollment is somewhat more closely related to the physician-population ratio than is the proportion of state residents who go to medical school. Still, the correlation is not very high, which indicates that medical school enrollment does not have a strong influence on the state physician ratio.

Herman Weiskotten and associates undertook a study in the early sixties to analyze the relative importance of various factors in determining where 1950 medical school graduates were practicing in 1959. Weiskotten suggests that three residential and educational factors may be involved. These are (1) the proportion of state residents attending medical school, (2) state medical school enrollment, and (3) graduate training in the state. It was reported that the location of one's residency appeared to be more important than the location of the medical school or any other factor in determining where a physician practices. Weiskotten found that of the graduates he studied, 43.4% were practicing in the state where their medical college was located; 48.8% were practicing in the state where internship requirements were fulfilled; 59.3% were practicing in their home state; and 63.1% had located in the state of residency training.⁸ These figures indicate that physicians tend to locate in that state in which they receive their residency training.

Weiskotten and his associates did not investigate the relationship between the intern-resident enrollment and the physician-population ratio. Another more recent study did determine this correlation. The graduate student-population ratio is much more closely associated with a state's physician-population ratio than are the home state or total enrollment ratios. The Spearman rank correlation was 0.82 between the number of residents and interns per 100,000 for the year 1967 and the average physician-population ratio for the period 1955-1967.⁹ In comparison with most states, Tennessee is not short of residents and interns. Despite this fact, Tennessee is one of only five states that have a high resident-intern ratio but a low physician-population ratio (16th and 29th respectively in 1967).¹⁰ Even though the resident-intern ratio seems to be a major determinant of the physician ratio in most states, it appears not to have the same favorable consequences for Tennessee that it has for other states with high resident-intern ratios. Socio-economic factors and foreign-educated physicians are probably the two variables accounting for this.

SOCIO-ECONOMIC FACTORS

Tennessee's per capita income for 1960 is moderately correlated with the 1955-1967 state physician-population ratio, the rank correlation being 0.53.¹¹ Tennessee's rank of 44th in per capita income partially explains its low rank on

the physician ratio. In fact, analysis indicates that the effect of the resident-intern ratio on the physician ratio does depend to some degree on the state's per capita income. This would be expected in that a medical school graduate who is looking for a place to do his internship or residency will take into consideration the economic conditions of the area. It is not a matter of physicians being attracted to other states because of differences in physician income. This is suggested by regional differences in the physician ratio and physician income. In 1970 the median income of physicians in the southern states was higher than it was for the eastern and western states, and only slightly lower than that of physicians in the Midwest. Considering the differences in the cost of living, southern physicians may be the highest paid physicians in the country. Therefore, the lower physician ratio in southern states appears not to be due to lower personal incomes found in these states, but it would appear instead that physicians are in shorter supply in these states because of the social and cultural characteristics which are associated with weaker economic institutions which characterize these states. Tennessee is no exception to this rule.

FOREIGN TRAINED PHYSICIANS IN TENNESSEE*

With respect to the rest of the nation, Tennessee has a much higher proportion of U.S. and Canadian trained physicians as compared to foreign trained physicians practicing in non-federal professional activities. The state had 3,768 of the former and 249 of the latter as of 1970, or approximately 6 percent, as compared to 20% nationally.¹² While another 88 foreign trained physicians have been licensed since 1970, we have no information on their state of practice or professional activities.

Tennessee's inability to attract and retain foreign physicians has helped to maintain a low physician-population ratio. For instance, about one-fifth of all new physicians licensed in the United States during the period 1955-70 were educated outside the country. This ratio has remained fairly constant over the years. However, in 1970, only 6.2% of Tennessee's phy-

* This portion of the paper is concerned only with analyzing the number of foreign trained physicians in Tennessee. The authors realize the problem that exists with foreign physicians leaving their countries to establish practice in the United States. The brain drain dilemma is significant, but the scope of this paper is limited only to Tennessee.

sicians were foreign trained. The actual effect of this can be seen in the following figures. If Tennessee had received the same proportion of foreign physicians practicing in patient care (in federal and non-federal categories) as did all the other states in 1955-70, that is, if the ratio of foreign physicians in patient care had been 23 per 100,000, the state would have a physician ratio of 117 instead of 101 per 100,000. It should be emphasized that only a 16 year period (1955-1970) is being considered in these calculations. In reality, the majority of Tennessee's physicians began their practice prior to this period. Consequently, if a longer period were considered, it would show that Tennessee's inability to attract foreign trained physicians has had a greater effect on the state's ranking in the overall physician ratio than these figures indicate.

Tennessee's poor rating in the foreign trained physician ratio seems to be the result of strict licensure laws, maintained until 1969, which apparently acted as a barrier to foreign physicians, and as a result, few entered the state. Tennessee's licensure requirements for foreign physicians are as follows:

There were some minor changes in the requirements between 1960 and 1968, but their effect upon the number of foreign trained physicians entering the state would have been insignificant. The major changes came in 1969 when Tennessee dropped its citizenship requirement and added the requirements of internship and residing in the U.S. for two years. In 1969, only 14 states required citizenship while the others had no requirements or only called for a declaration of intent. The requirement of citizenship is a substantial one in that it usually takes from five to seven years for a person to become a citizen. The citizenship requirement apparently was the primary barrier to foreign trained physicians.

The addition of an internship cannot be considered an uncommon requirement, since by 1969 all but 8 states required this. In the ten year period that licensure requirements were examined, Tennessee is the only state that has instigated a "residing in the U.S." requirement. This may appear to discriminate against foreign physicians, but in practice, the requirement is not that restrictive. During the two year period, the phy-

TABLE I
Requirements for Medical Licensure in Tennessee 1960-1972¹³

<i>Year</i>	<i>Admitted on Reciprocal Basis</i>	<i>Citizenship</i>	<i>Basic Science Certificate</i>	<i>Internship</i>	<i>Certified by E.C.F.M.G.</i>	<i>Written Exam</i>
1960- 1968	yes	yes	yes	no	yes	yes
		<i>Other</i> All applicants must be from medical schools whose curriculum equals that of the University of Tennessee. Each applicant is considered on an individual basis, and must appear before the Board of Medical Examiners before certification to the Licensing Board for a license to practice medicine in Tennessee.				
		Offers FLEX** Exam				
1969- 1972	yes	no	no	yes	yes	yes
		<i>Other</i> Same as 1960-1968, plus each applicant must have resided in the United States for a period of two years immediately prior to applying for the licensure examination.				

** In 1968, the Federation of State Medical Boards of the United States developed the FLEX Exam. In recording this TAMA substituted "Offer FLEX Examination" for "Basic Science Certificate." Tennessee still requires the basic science certificate, but next year will offer the FLEX Examination.

sician is able to complete his internship and other requirements.
To become licensed, a foreign trained physician must successfully complete the state requirements (internship, certification by the

ECFMG, etc.) before becoming eligible to take the licensure examination. If this is passed, the person is certified by the Board of Medical Examiners. Board certification means that the applicant has completed all the requirements and is now eligible to be licensed. The physician is sent an application for licensure which is filled out and returned with the license fee. Once the application is received, the individual is sent a license by the State Licensing Board of the Healing Arts, allowing the person to practice medicine in Tennessee.

A symptom of Tennessee's inability to attract foreign-trained physicians before the licensure change is indicated by data in the following table:¹⁵

TABLE 2
Residency and Internship in Tennessee and the United States, 1970

	Tennessee		United States	
	No.	%	No.	%
Residents on Duty (9/1/70)				
U.S. or Canadian graduates	537	85%	26,277	67%
Foreign graduates	95	15%	12,943	33%
Interns on Duty (9/1/70)				
U.S. or Canadian graduates	184	95%	8,213	71%
Foreign graduates	9	5%	3,339	29%
Residencies not filled		22%		15%
Internships not filled		35%		25%

These data show that Tennessee internship and residency programs have been relatively inaccessible or unattractive to foreign graduates as compared to the nation as a whole. It has previously been shown that a high correlation exists between place of graduate training and place of practice. Thus it appears that Tennessee is missing a significant opportunity to recruit foreign-trained physicians.

*** Information from the Health Related Boards, State of Tennessee, indicates a discrepancy with information supplied by the state to the AMA for these publications. The former sources shows:

Year	1969	1970	1971	1972
No. Licenses issued	13	28	54	82

As of Dec., 1970, foreign trained physicians in *all* professional activities in Tennessee amounted to 306 but only 95 had full licensure, 211 had not completed licensure requirements and had temporary licenses because they did not fulfill the citizenship requirement. (*Op cit*, Haug, Martin, *Foreign Medical Graduates in US*, p 305.) It seems reasonable that this group is being issued permanent licenses since the change in requirements but they do not reflect additions to the medical profession as they have already been included in previous years in the AMA statistics.

At the same time, Tennessee internship and residency programs experienced significantly higher vacancy rates than the national average. This unused capacity could be used to increase the number of foreign-trained physicians locating in Tennessee.

The effects of the 1969 change in licensure requirements were not felt until 1970.*** Table 3 indicates the changes that did take place.

The change in the licensure requirements brought about a significant increase in the overall number of foreign trained physicians that qualified to take the licensure exam. However, in the special case of reciprocity, one can see that a number of persons have qualified but none have become licensed in the last five years. In

fact, during the period between 1966-1972, only one foreign trained physician was licensed through reciprocity, in order for one to become licensed under this arrangement, he/she must be a citizen.

However, it must be acknowledged that Tennessee has so far failed to retain a large proportion of the foreign graduates with residency training in the state. As of December 31, 1970¹² only 62 (22.4 percent) of the 276 physicians in this category had remained to practice, whereas for the U.S., approximately one-half (47.4 percent) of all foreign graduates were practicing in the same state where they received training.

CONCLUSIONS AND IMPLICATIONS

In summary, evidence shows that Tennessee is in a superior position to most states in the variable that is most closely associated with the physician ratio—the resident-intern ratio. It is also in a superior position with respect to medical-school enrollment, which, however, is less closely associated with the physician ratio. In addition, Tennessee ranks high in the proportion of Tennessee residents attending medical school but this

TABLE 3
*Foreign Licensure Statistics for Tennessee 1968-1972*¹⁴

<i>Year</i>	<i>No. Taking The Licensure Exam</i>	<i>No. Passing Thus Being Certified For Licensure</i>	<i>No. Licensed By Exam</i>	<i>No. Eligible For Licensure By Reciprocity</i>	<i>No. Licensed By Reciprocity</i>
1968	2	2	2	8	0
1969	0	0	0	14	0
1970	37	36	3	1	0
1971	55	55	36	8	0
1972	53	53	44		0

is not apt to lead to substantial improvement in the physician ratio. Despite these facts, (1) the Tennessee Higher Education Commission and Governor Dunn's report recommend expanding the University of Tennessee College of Medicine and contracting with both Vanderbilt University and Meharry Medical College for spaces reserved for Tennessee students, (2) the legislature authorized a new medical school to be established in East Tennessee.

The state should not waste the people's money on these relatively ineffectual attempts to alleviate the shortage of physicians when other measures would result in a greater number of physicians locating in Tennessee. Socio-economic factors are not likely to change dramatically over the next few years so there remain only two ways for the state to increase the number of physicians by the prescribed 3,400 by 1980. First, THEC and the Governor's study suggest that clinical training centers for senior medical students be established, thus increasing the number of intern and residency positions. This should be done in lieu of expanding medical school facilities. Governor Dunn's report also recommends a regional medical care concept with university medical centers, regional health education centers, clinical training centers, and primary care centers all interconnected, thus making quality medical care accessible to all. This is an admirable idea, but as even the report admits, the problems associated with an organizational scheme such as this are enormous. Secondly, Tennessee should take an active role in improving its foreign physician ratio. Historically, very few foreign trained physicians have been licensed in Tennessee. In 1969 discriminatory requirements were dropped, thus increasing the number of persons that are eligible for and receiving licensure in the state. The state

still needs to take stock of itself concerning social and cultural factors, in particular sex and racial characteristics of foreign physicians, which might cause those receiving licenses to avoid practicing here.

REFERENCES

1. Tennessee Higher Education Commission *Medical Education for Tennessee*, February, 1971.
2. *Health Resources Statistics*, Washington: US Government Printing Office, 1968, Table 79, pp 125-126. The year 1967 is the most recent for which comparable studies were available. Tennessee's actual numerical rank might have changed in the past five years, however, the change would not have been enough to prove significant.
3. Haug, JN, Roback, GA, Martin, BC: *Distribution of Physicians in the United States*, 1970. Chicago: AMA, 1971, p 116,54.
4. Theodore, CN, Haug, JN: *Selected Characteristics of the Physician Population*, 1963 and 1967, Chicago: AMA, 1968.
5. *JAMA*, "Education Issues," 1959-1968.
6. *JAMA*, "Medical Education in the U.S., 1970-71," 218: 1287-8.
7. See Rushing, W, and Zubkoff, M: "Some Social and Economic Aspects of Physician Manpower and Medical Care Organization." Report to the Tenn.-Mid-South Regional Medical Program, 1972 and Theodore, CN, Sutter, GE, and Haug, JN: *Medical School Alumni*, Chicago: AMA, 1968, pp 611-612. The upper and lower limits to a correlation are +1.00 and -1.00. A rank correlation of +1.00 would mean that all states have the same rank on the physician-and student-population ratios; a -1.00 correlation would mean that a state's rank on one ratio would be opposite to its rank on the other. A correlation of 0.00 would indicate that there is no correspondence (positive or negative) between the two rankings; prediction of a state's rank on the physician-population ratio that is based on knowledge of its rank on the student-population would be no better than chance. Hence, the correlation of 0.09 indicates that prediction of state rank on the physician-population ratio based on the student-population ratio is no better than chance.
8. Weiskotten, HG, Wiggins, WS, Altenderfer, ME,

Couch, M, and Tipner, A: "Trends in Medical Practice—An Analysis of the Distribution of Characteristics of Medical College Graduates, 1915-1950," *J Med Ed*, 35: 1071-1121 (Dec 1960).

9. See Rushing and Zubkoff, *op cit*, and *Health Resource Statistics op cit*, Tables 79 and 80, pp 125-128; and Theodore, Sutter and Haug, *op cit*, pp 611-612. Analysis based on residents only gives virtually the same results. It would have been better to have an average annual resident-intern ratio for a period of years to eliminate any unusual variation that may have occurred in 1967. However, the source from which the ratios are obtained only gives resident-intern figures for 1967.

10. Rushing, WA, Zubkoff, M, *op cit*, p 10-11.

11. *JAMA*, *op cit*, 1959-1968, and US Bureau of

Census, *Statistical Abstract of the United States*, 1969, Washington: US Government Printing Office, 1959, p 320.

12. Haug, JN and Martin, BC: *Foreign Medical Graduates in the United States, 1970*, American Medical Association, Center for Health Services Research & Development, Chicago, 1971, p 306.

13. "Medical Licensure Statistics," 1960-1971, *JAMA*, Vol. 176, No. 8, 1961; Vol. 180, No. 10, 1962; Vol. 184, No. 10, 1963; Vol. 188 No. 10, 1964; Vol. 192, No. 10, 1965; Vol. 196, No. 19, 1966; Vol. 200, No. 12, 1967; Vol. 204, No. 12, 1968; Vol. 208, No. 11, 1969; Vol. 212, No. 11, 1970; Vol. 216, No. 11, 1971.

14. *JAMA*, 216: 1852, 1971 and 225: 299-303, 1973.

15. *JAMA*, 218: 1232, 1315.

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Review of the Functional Neuromuscular Transmission Unit

HENRY B. STOKES, M.D.

Neuromuscular Transmission: Effect of Guanidine and Botulinum Toxin

- I. Functional Components
 - A. Miniature End Plate Potentials (MEPP)
 - B. End Plate Potentials
 - C. Examples of Neuromuscular Block
 - D. Methods of Intracellular Recordings
- II. Effect of Guanidine
 - A. Type of Action
 - B. Clinical Implications
- III. Effects of Botulinum Toxin
 - A. Clinical Features of Botulinum Intoxication
 - B. Post-Tetanic Potentiation

I. FUNCTIONAL REVIEW OF NEUROMUSCULAR JUNCTION

There are four steps in neuromuscular transmission:^{7,12}

- (1) Propagation of the action potential in the nerve ending
- (2) Liberation of Acetylcholine by the action potential
- (3) Depolarizing of the muscle end plate potential in muscle fiber
- (4) Triggering of the action potential in muscle fiber

A. Concept of Acetylcholine quantum

At the resting neuromuscular junction, small quantities of Acetylcholine (ACh) are continuously being liberated from the motor nerve terminals in the form of multimolecular units called ACholine quanta packages. If a micro-electrode is inserted into the muscle fiber at the end plate region, the increase in membrane permeability caused by these small quantities of ACh can be recorded as miniature end plate potentials (MEPP) which are usually 1 millivolt in amplitude, much less than is required to trigger a response in a muscle fiber. They occur at random intervals, with spontaneous frequency at about one per second.^{2,5-8,13} The frequency is increased if the nerve terminal is depolarized by electric current, by increasing external potassium, or by increasing the calcium content of the media.

Some investigators^{5,6,13} have found the MEPP

to occur at frequencies of 1-34/sec. in different muscle fibers with the majority between 2 and 10/sec. with an amplitude varying between 0.5 and 1.5 mV in different fibers.

Factors affecting the miniature end plate potential:^{2,10} By increasing the temperature up to a range of 30-38° C., the frequency of release of ACh quanta or the production of MEPP follows a linear ascending relationship. Under normal conditions, the average frequency of miniature end plate potentials is increased slightly by single nerve stimuli, and is greatly increased for several minutes by, *repetitive nerve stimulation*.^{2,7} High calcium concentration increases the frequency of MEPP, whereas low calcium concentration decreases the frequency of MEPP.^{2,5,7,13} High concentrations of magnesium decrease the frequency of MEPP. Effect of other drugs and toxics discussed elsewhere in this paper. When extracellular potassium is increased, the amplitude and frequency of the end plate potentials is increased.^{2,5}

B. End Plate Potential (EPP)

When a nerve impulse reaches the motor nerve terminal, it causes a rapid depolarization of the nerve ending, and a nearly simultaneous release of a large number of ACh quanta. The quantity of ACh normally liberated gives rise at the end plate potential (EPP) so large that it triggers a propagated action potential in the muscle fiber and muscle contraction results.^{2,5,6,13}

If the number of ACh quanta released by the nerve action potential is decreased as occurs when external calcium is lowered, or magnesium is increased, the resulting end plate depolarization may be too small to trigger an action potential in the muscle fiber.

The end plate potential (EPP) can also be made subthreshold by rendering the muscle end plate membrane less sensitive to ACh, for instance with curare-like drugs or by blocking the synthesis of ACh by hemicholinium.^{5,7,13} In these circumstances stimulation of the transmitter release causes the quantity of ACh in each EPP to decrease progressively. In turn there is a decrease of the number of the MEPP, and of the EPP evoked by nerve stimulation, and block in

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neurotransmission occurs.^{2,5,7,13}

Comparison of the sizes of EPPs and of spontaneous MEPP provides a basis for a rough estimate of the number of constituent miniature potentials in a nerve induced EPP. The best measurement of maximal EPP during the relative refractory period after a transmitted impulse yielded amplitudes of 52-54 mV, while action and resting potentials were 103 and 65 mV, respectively.^{2,5,6} The mean amplitude of MEPP in most experiments has been about 0.9 mV, suggesting a ratio of amplitudes of at least sixty miniature end plate potentials to one normal end plate potential.^{2,5}

C. Examples of Neuromuscular Block

In Myasthenia Gravis, the presynaptically released transmitter package causes an end plate depolarization which is much smaller than normal; however, the number of transmitted packages of ACh released is within normal limits. Because no reduction in the sensitivity of the postsynaptic membrane to ACh analog can be found, the evidence strongly suggests that the quantity of ACh in each transmitter package is reduced.⁷

In the Myasthenic syndrome, the defect is different from Myasthenia Gravis, and similar to the one induced by excess Magnesium, botulinum toxin, Neomycin, Colymicin, Streptomycin, etc., which are known to decrease the number of ACh packages released per impulse.^{7,12}

D. Methods of Intracellular Recording

When a muscle is soaked in a solution containing approximately 10 mM of $MgCl_2$, and supra-maximal stimuli delivered to the nerve at different frequencies, transmission becomes blocked and subthreshold EPP's can be recorded at individual junctions. A characteristic feature of these responses is their random fluctuation in successive recording.

If the response is further reduced by increasing Mg^{++} or lowering Ca^{++} concentrations, the amplitude fluctuations become even more pronounced and are found to be discontinuous in character. Under these conditions, on the average, only about one out of seven nerve impulses elicits an end plate potential whose size is of the same order of magnitude as the spontaneous potentials.⁷ This behavior is characteristic of block by Mg and low Ca, and very different from curare block. With increasing doses of curarine, the EPP at individual junctions

is progressively reduced in size and may eventually become undetectable but the response does not fluctuate in a quantal manner as it does with the type of block under discussion.

If one proceeds to add Mg^{++} or withdraw Ca^{++} ,^{2,5,6,11} a practical limit is reached when the EPP response becomes too infrequent to be distinguished from a spontaneous discharge. There are no differences in amplitude which would enable one to discriminate between the two forms of activity; the difference depends entirely on the constant latency of the evoked response and random timing of the spontaneous discharges.

Most experiments are made at an intermediate level of blocking when the proportion of failure of the given stimuli to produce an EPP is in the range of 50%. Many of the EPP fall evidently within the range of sizes of the spontaneous potentials. Others are larger and probably represent multiple units of response.

Application of the Poisson's Law for Determining Quanta of ACh.^{2,5,7,11}

Assume that we have at each nerve muscle junction a population of "n" units capable of responding to a nerve impulse. Suppose further, that the average probability of responding is "p"; then the mean number of units responding to one impulse "m" is $m = np$. Under normal conditions, "p" may be assumed to be relatively large, that is, a fairly large part of the synaptic population responds to an impulse. However, as the Ca^{++} is decreased, and the Mg^{++} is increased, the chances of responding are markedly diminished.

From detailed analysis of amplitude of nerve stimulation results and the amplitude of mean spontaneous MEPP, and plotting them in an histogram, it is clear that there are at least two peaks, at 0.6 and 1.2 millivolts, respectively,^{5,7} corresponding to 1 and 2 times the mean amplitude of the spontaneous MEPP and thus indicating that the EPP evoked by nerve stimuli are being built of units identical to the spontaneous occurring MEPP. The mean number of quanta per nerve impulse of the quantum content (m) can then be calculated as:

$$m = \frac{\text{mean amplitude of EPP: } 0.56 \text{ mv: } 0.93}{\text{mean amplitude of MEPP } 0.60 \text{ mv}}$$

or by applying Poisson's law:

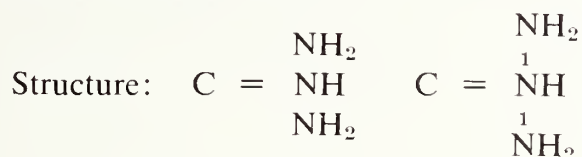
$$e^{-m} = \frac{\text{number of failures}}{\text{number of impulses}}$$

$$\text{or } m = \ln \frac{\text{number of impulses}}{\text{number of failures}} = \ln \frac{535}{219} = 0.89$$

The two independent estimates of the quantum content are similar and we may conclude that the EPP are composed of units identical to the MEPP and that the number of units per EPP is distributed according to Poisson's law.^{2,5-7} The above estimates have been exactly documented in cases of Myasthenic syndrome, neuromuscular block with magnesium and other toxins acting at the same level.

II. EFFECT OF GUANIDINE

A. Action of Guanidine



In the early studies of the effect of guanidine in the end plates, it was noticed that the drug increases the amplitude of the EPP in the curarized muscle fiber.^{15,17}

Extensive studies have shown that guanidine does not exert its effect by increasing the sensitivity of the end plate to ACh, nor by inhibiting the activity of the cholinesterase, but rather by increasing the quantity release of the ACh from the nerve endings.¹⁷ The electrical properties of the membrane are not affected by guanidine.

Detailed studies demonstrated that neither the frequency nor the size of the MEPP are appreciably affected by guanidine.¹⁷ The evidence indicates that the quantum content of the EPP rather than the unit size are increased by guanidine.

One of the most characteristic effects of guanidine treated nerve muscle preparations is the appearance of spontaneous twitchings of striated muscles. Intracellular recording simultaneously show the appearance of end plate potentials of more than 5 mV in size¹⁷ (giant potentials). The origin of these giant potentials is not clear, but neither the summation of MEPP nor lowering of threshold below the level of MEPP are the cause. These giant potentials and spontaneous twitches are nullified by the addition of Ca^{++} . It is suggested that the antagonism between calcium and guanidine is presynaptic.¹⁷

Electrophysiological studies had suggested that the neuromuscular benefit of guanidine is due to increased amplitude of presynaptic spikes arriving during a positive after potential left by the

preceding impulses. The fact that neuromuscular facilitation by itself is not affected by guanidine might suggest that the drug has no effect on the positive after potential of nerve endings.^{12,17,20}

The appearance of spontaneous giant spontaneous potentials whose amplitude is smaller than that of normal EPP but much larger than that of MEPP strongly suggests preterminal points (e.g. after the branching of the axon) to be the site of action of guanidine.¹⁷

From another aspect, it is suggested that the increase of quantum content of EPP is due not to increased synthesis of ACh but rather because under normal conditions the production of a normal EPP involves only a fraction (e.g. $\frac{1}{3}$) of the total presynaptic population of ACh release units, and that the latent units are recruited either by raising the Ca^{++} concentration or by guanidine.

Other drugs that seem to act in a similar manner as guanidine and at the same level are 3-hydroxyphenyltrimethylammonium and tetraethylammonium.¹⁷

B. Clinical Uses of Guanidine

Because of its effect in neuromuscular transmission, guanidine has been used with success in cases that have in common a block in the release of ACh,^{9,17} such as Botulinum intoxication, magnesium intoxication, Myasthenic syndrome secondary to some antibiotics toxicity. e.g. Streptomycin, Kanamycin, Colymycin, Neomycin, etc.

Its success has been extremely good in patients that have the myasthenic syndrome secondary to Small Cell Carcinoma of the Lung (Eaton Lambert Syndrome). These patients present clinically with generalized proximal weakness and difficulty in initiating movements. They show a very characteristic EMG abnormality^{7,12} consisting of (1) very low evoked potential to single stimulation, (2) decrement of evoked potential at low frequencies, (3) increase of the size of the evoked potential at high frequencies of stimulation, and (4) increase in the size of the evoked potential after exercise. The clinical signs as well as the electrical abnormalities have responded extremely well to a dose of 20 to 35 mg/Kg/day of guanidine.^{7,12,20}

Before the Cholinesterase inhibitors became popular in the treatment of Myasthenia Gravis, guanidine was used with relatively good results in this disease.^{15,16,18}

III. EFFECT OF BOTULINUM TOXIN IN NEUROMUSCULAR TRANSMISSION

A. Clinical Features of Botulinum Intoxication

Botulinum toxin is produced by *Clostridium botulinum* and parobotulinum, which are anaerobic bacteria. The disease is acquired by the ingestion of contaminated food, particularly canned. One case has been reported secondary to a wound.^{1,3,4,22} The toxin can be neutralized by heating. Type "A" toxin is the more virulent.^{1,3}

Incubation time varies from 12 to 72 hours. Symptoms usually start with gastrointestinal upset, followed by dizziness, malaise, diplopia, and generalized progressive weakness. Any of the cranial nerves except I and II can be involved.

Botulinum toxin has been analyzed and found to be a Polypeptide. Early electrophysiological studies have suggested that botulinum type "A" toxin acts on motor nerve terminal filaments proximal to the site of release of ACh. This conclusion was based mainly on two consistent findings: (1) No EPP were found on the surfaces of end plate regions of whole muscles when neuromuscular transmission ceased, and (2) direct stimulation of blocked neuromuscular preparations released approximately the same amounts of ACh as did stimulation of the nerve trunk before toxin caused paralysis.²

B. Post Tetanic Potentiation

The facts indicate^{2,20} that just after junctional transmission is blocked with toxin, repetitive stimulation of the motor nerve re-establishes muscle response to single nerve stimulation for several minutes (Post tetanic potentiation or PTP). Neuromuscular facilitation (potentiation) has been shown to be accompanied by an increased probability of discharge on MEPP.²

Post tetanic potentiation was found to be effective in relieving neuromuscular block, i.e. in permitting subsequent single nerve stimuli to set up an action potential, as long as the frequencies of MEPP were raised to about the normal rate at which transmission is still possible for single nerve stimulation in the normal junction.²

The exact mechanism of botulinum toxin seems to be that neuromuscular transmission block resembles that of a medium low in calcium or high in Mg,^{2,9,20} but it is distinct from it and all other processes affecting the presynaptic path in that botulinum toxin depresses spontaneous release of ACh as well.²

Post tetanic potentiation seems to act by increasing the frequency of random activity (MEPP) as well as the quantum content of the EPP. Botulinum toxin, as would be expected from the quantum theory, decreases the frequency of MEPP, but does not affect its amplitude because they are units, and function in an all or none basis.⁵

SUMMARY

1. Acetylcholine under normal conditions is released in the functional neuromuscular unit, in small packages called Quanta.

2. These packages of ACh behave as functional units in an all or none way, and produce spontaneous and random minimal end plate depolarizations, called miniature end plate potentials. Amplitude 0.5 to 1.5 mV, frequency 2-10/sec.

3. The end plate potential is composed of the sum of about 80-90 MEPP, its amplitude is 70 to 80 mV.

4. In the depression of neuromuscular transmission by excess Mg^{++} , antibiotics, myasthenic syndrome, the number of MEPP is decreased as well as the amplitude of EPP; but the size of the MEPP remains unchanged.

5. Guanidine exerts its beneficial effect by increasing the quantum content of the end plate potential, and not by altering the frequency of the MEPP.

6. Because of its properties, Guanidine is a very useful drug in the treatment of intoxications with Mg^{++} , Botulinum toxin, and antibiotics that block neuromuscular transmission.

7. Botulinum toxin affects the neuromuscular transmission by decreasing the frequency of MEPP.

8. The facilitation (post tetanic potentiation—PTP) obtained at high frequency stimuli in cases of presynaptic block is secondary to an increase in the frequency of MEPP.

BIBLIOGRAPHY

1. Ambache, N: Peripheral Action of Clostridium Botulinum on motor nerve filaments. *J Physiol*, 108: 127, 1949.
2. Brooks, VG: An intracellular study of the action of repetitive nerve volleys and of Botulinum toxin on miniature end plate potentials. *J Physiol*, 134:264, 1956.
3. Brochhurst, et al: Fatal outbreak of botulism among Labrador eskimos. *Brit Med J*, 2:924, 1957.
4. Cherington, et al: Botulism and Guanidine, *NEJM*, 278:931, 1968.
5. Del Castillo, J, Katz, B: Quantal components of the end plate potential. *J Physiol*, 124:560, 1954.
6. Del Castillo, J, Engback, C: The nature of the

neuromuscular block produced by magnesium. *J Physiol*, 124:370, 1954.

7. Emquist, Lambert. EH: Detailed analysis of neuromuscular transmission in patients with the myasthenic syndrome, sometimes associated with Bronchogenic Carcinoma. *Mayo Clinic Proc*, 43:689, 1968.

8. Fatt, P, Katz. B: An analysis of the end plate potential recorded with an intracellular electrode. *J Physiol*, 115:320, 1951.

9. Feng, TP: Effect of Guanidine in the end plate potentials. *Clin J Physiol*, 15:267, 1940.

10. Hofman, WW, et al: Effects of temperature and drugs on mammalian motor nerve terminals. *Am J Physiol*, 211:135, 1966.

11. Katz, et al: Nerve muscle and synapse. New York, McGraw-Hill Book Co. Inc. 1966, pp. 129.

12. Lambert, E: Defects of neuromuscular transmission in syndromes other than myasthenia gravis. *Ann NY Acad Sci*, 135:367, 1966.

13. Liley, W: The quantal components of the mammalian end plate potential. *J Physiol*, 133:571, 1956.

14. Masland, et al: The effect of Botulinum in EMG. *J Pharm Exp Ther*, 97:499, 1949.

15. Minot, et al: Use of Guanidine hydrochloride in the treatment of myasthenia gravis. *J Am Med Assn*, 113:553, 1939.

16. Minot, et al: Comparison of the effect of calcium and atropine and scopolamine on plasma loss and general symptoms of Guanidine intoxication. *J Pharm & Exp Ther*, 65:243, 1939.

17. Otsuka, M, Endo, M: The effect of Guanidine on neuromuscular transmission. *J Pharm Exp Ther*, 128:273, 1960.

18. Pritchard, E: Prostigmin in the treatment of Myasthenia Gravis. *Lancet*, 1:432, 1935.

19. Physiology of Botulinum toxin. *Arch Neurology Psych*, 57:578, 1947.

20. Scaer, RC: Effect of Guanidine on the neuromuscular block of botulism. *Neurology*, 19:1107, 1969.

* * *

Drug Evaluation Study Request

The Division of Cardiology, Vanderbilt University Medical Center, has received approval to participate in a multi-center double-blind study on a new beta adreno-receptor blocking compound, Tolamolol. This drug has been evaluated in the United Kingdom and Australia and has been shown to be a predominantly negative chronotropic and a lesser inotropic action on the heart than the only other beta blocker available.

The greatest therapeutic benefits of this drug can be expected in the management of chronic ambulant angina pectoris. It is hoped that attacks of ischemic pain may be significantly reduced by the drug.

The Division of Cardiology is seeking your help in referring patients for this study. The drug appears to have minimal adverse effects. The Division is seeking the following types of patients with ischemic heart disease.

- (1) Male and female outpatients greater than 21 years of age
- (2) Typical symptoms of typical substernal pain usually precipitated by exertion and lasting no more than five minutes
- (3) Positive exercise test
- (4) A minimum of four to five anginal attacks per week

Excluded from the study would be:

- (1) Pregnant women
- (2) Concomitant anti-anginal drug therapy with the exception of sublingual glyceryl trinitrate
- (3) Any evidence suggestive of impending myocardial infarction
- (4) Bronchospasm
- (5) Bradycardia
- (6) Second or third degree A-V block

The duration of the study will be for twenty-eight weeks and if any deterioration in the patient's condition were to occur, withdrawal from the program would be immediate. The interest of the patient's well-being will prevail throughout the study. The study, if successful, should provide us with another significant drug in the management of ischemic disease.

Contact: Bruce Sinclair-Smith, M.D.
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Hypertension Screening

Hypertension is the most common chronic disorder with which the physician must deal in outpatient medicine. The 1960-1962 National Health Survey indicated that 15% of the adult population suffered from blood pressure elevation of 160/95 or higher and another sizeable percentage had blood pressures from 140/90 to 159/94.¹ These startling statistics have been confirmed in a number of subsequent mass screening programs throughout the United States.

Morbidity and mortality studies, primarily from insurance companies, have indicated hypertension to be a major risk factor in coronary heart disease, hypertensive heart disease, cerebrovascular disease and renal disease. The Veterans Administration Cooperative Study Group has presented convincing evidence that the increased morbidity and mortality from hypertension can be reduced significantly if hypertension is controlled with medications.² The majority of hypertensives, however, are either undetected, untreated, or inadequately treated. This problem is compounded by the fact that hypertension is a disease without symptoms, and even if recognized it often does not elicit a response from either patients or physicians until the development of a cardiovascular complication. The major challenges which clinicians who deal with hypertension must now face are the identification of those patients whose blood pressure places them at a significantly increased risk of hypertension-related morbidity, and the development of techniques which will assure that patients identified as being hypertensive will have their blood pressure adequately controlled on a continuous basis. The first of these challenges is most efficiently met by a mobile van or clinic set up at shopping centers which permits rapid screening for hypertension of a representative population. The second challenge can be met only through an increased awareness by both patients and physicians of hypertension and its sequelae.

In September 1973, members of the 306th Medical Clearing Company contacted the Middle Tennessee Heart Association about setting up a

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program of hypertensive screening in Middle Tennessee. Since then, 3,450 subjects have been screened for hypertension at monthly screenings held in shopping centers in Davidson County. This report contains the results of six monthly screenings performed by members of the 306th Medical Clearing Company, nurse volunteers from Davidson County and members of the Middle Tennessee Heart Association. Interpretation of the data gathered from questionnaires and from blood pressure readings was processed by members of the Hypertension Center, Vanderbilt University Hospital. Blood pressures were recorded by a nurse or army medic skilled in taking blood pressure using an aneroid sphygmomanometer. A single determination of blood pressure was performed as suggested by Wilbur et al.³ Questionnaires seeking information about previous history of hypertension, current antihypertensive therapy, oral contraceptive use, family history of hypertension, and occurrence of morbid events were filled out by the personnel recording the blood pressure.

The relationship between blood pressure and morbidity-mortality is a quantitative one from the lowest to the highest pressures; nonetheless, certain arbitrary blood pressures must be assigned in order to define the severity of blood pressure elevation in such a study. Categorization of severity of hypertension was made on the basis of a patient's physiologic mean blood pressure ($\frac{1}{3}$ pulse pressure added to the diastolic pressure). A mean pressure of less than 107 (mean of 140/90) was termed normal; blood pressures between 107 and 116 (mean of 160/95) were termed mild elevations; mean pressures from 117 to 139 (mean of 180/120) were defined as moderate hypertension; and mean pressures above 140 were termed severe.

3,450 patients have been screened to date in this program. Table I shows a breakdown of all patients according to sex, age and severity of hypertension. A total of 2,084 women were screened, with 370 or 17.7% categorized as hypertensive. 1,366 men were screened, with 307 or 22.5% being categorized as hypertensive. 116 of 1,505 women (8%) and 125 of 968 men (13%) who had never been told of hypertension

TABLE 1

Age	Men			Women		
	Mild	Moderate	Severe	Mild	Moderate	Severe
< 19	3/188	0/188	0/188	1/337	1/337	0/337
20-29	39/349	6/349	0/349	13/453	3/453	1/453
30-39	23/217	13/217	0/217	18/292	6/292	3/292
40-49	35/218	17/218	3/218	43/355	27/355	0/355
50-59	44/200	27/200	1/200	68/326	28/326	0/326
60-69	47/131	14/131	5/131	76/241	33/241	2/241
> 70	21/63	8/63	1/63	36/80	11/80	0/80
	212/1366 (15.5%)	85/1366 (6.2%)	10/1366 (< 1%)	255/2084 (12%)	109/2084 (5%)	6/2084 (< 1%)

Classification of hypertensives as to age, sex and severity of hypertension. Data are expressed as fraction of total screened in each age group.

in the past were found during this screening to be hypertensive. Although the majority of hypertensives fall into the category of mild blood pressure elevation, one third of all hypertensives had blood pressures in the moderate or severe range.

Of further note in this study are the data gathered on adequacy of therapy in patients who have previously known of their hypertension. 53% of women and 60% of men currently listed as being on therapy were observed to be hypertensive during screening. Over half of these patients had blood pressures recorded in the moderate range and two patients were categorized as severely hypertensive despite drug therapy. Further, 25.6% of male patients and 22.4% of female patients who had been told of their hypertension in the past were hypertensive on no medications at the time their blood pressure was taken. These data suggest that neither patients nor physicians take hypertension seriously.

The real value of the mass hypertension screening program is to uncover new hypertensives and to take the steps necessary to refer these patients for hypertensive evaluation and therapy.

None of the information gathered in this report is surprising since statistics from screening programs around the country have shown similar results. This does represent an initial step in the recognition of hypertensive patients in Middle-Tennessee communities. Patients who are recog-

nized as being hypertensive are told of their hypertension and their doctors are notified of the findings. Volunteers from the Middle Tennessee Heart Association have contacted each hypertensive patient to remind him to see his physician about his blood pressure elevation.

Mass screening programs are important in the recognition of hypertension and the definition of the problem of inadequate blood pressure control. However, this alone is not sufficient to insure adequate control of all hypertensive patients. Large scale educational programs aimed at patients and physicians will be needed to increase the number of hypertensive patients under adequate blood pressure control.

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REFERENCES

1. Hypertension and Hypertensive Heart Disease in Adults, United States 1960-62, National Center for Health Statistics, Series 11, No 13, May 1966.
2. Veterans Administration Cooperative Study Group on Anti-Hypertensive Agents. Effects of treatment on morbidity in hypertension. 1. *JAMA*, 202:116, 1967.
3. Wilbur, JA, Barrows, JG: Hypertension—A Community Problem, *Am J Med*, 52:653, 1972.

HISTORY

The patient is a 56-year-old farmer who six days prior to transfer to St. Thomas Hospital developed sharp chest pain and shortness of breath. A presumptive diagnosis of pneumonia was made and the patient was started on penicillin therapy. He progressively improved on this regimen until approximately 8 hours prior to transfer to St. Thomas Hospital. At that time

he had abrupt onset of a severe "smothering" sensation with loss of blood pressure and marked diaphoresis. Physical examination revealed a systolic blood pressure of 70 mm Hg with clammy, cool skin. There was no chest pain. There were no unusual findings on auscultation of the chest. He had tenderness in the left calf, and was felt to have sustained a pulmonary embolus, for which he was treated with heparin and vasopressor therapy. Upon arrival at the St. Thomas Hospital emergency room, systolic blood pressure was 100 mm Hg. Physical examination was otherwise essentially unchanged. He had no rales or rhonchi on auscultation of the chest. The arterial blood pO_2 was 60 mm Hg while he was receiving O_2 by nasal cannula at 5 L/min. The following electrocardiogram was obtained. (Fig. 1)

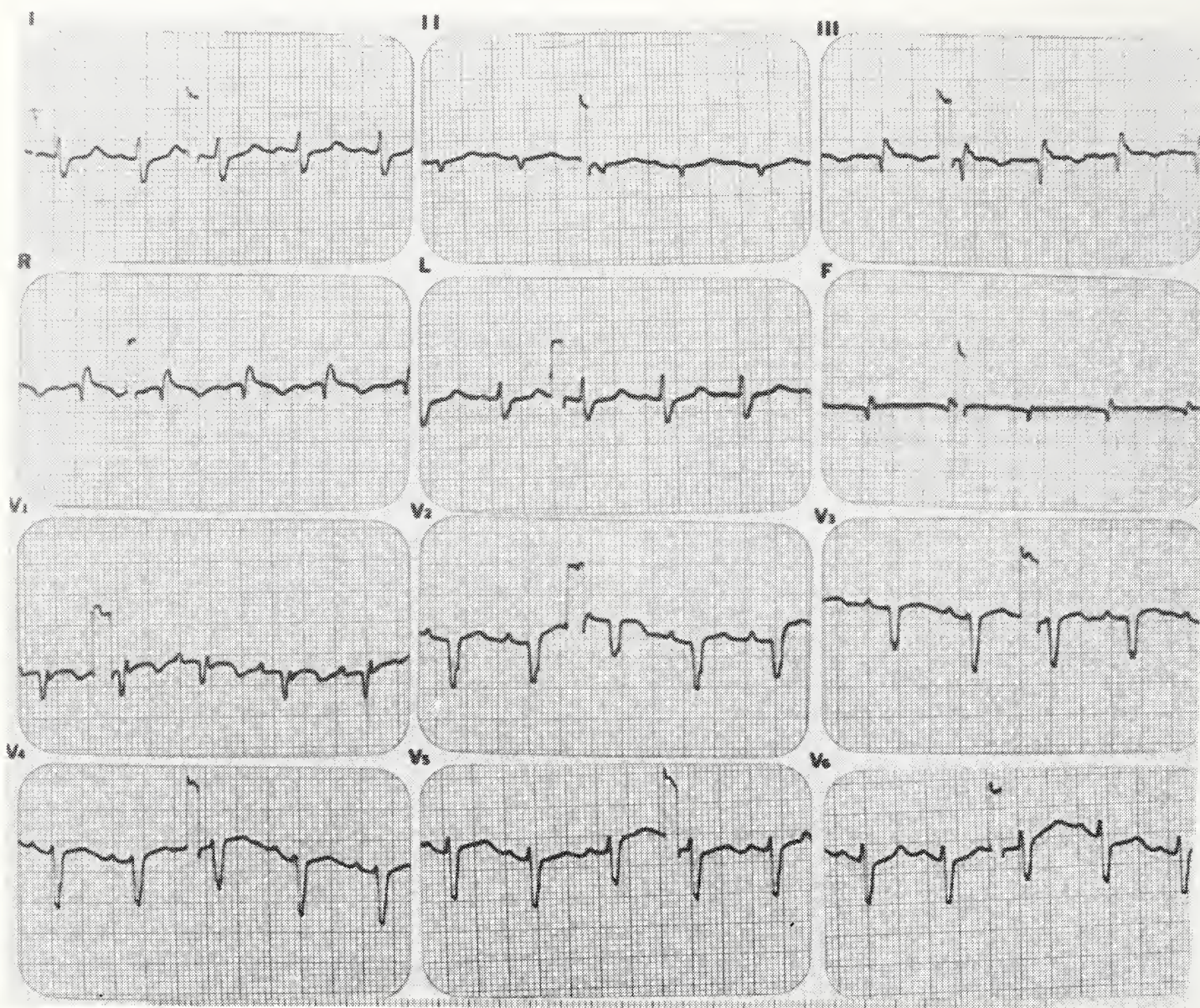


FIG. 1

DISCUSSION

Electrocardiogram shows a sinus rhythm at a rate of 113/minute. The mean axis in the frontal plane is notably rightward with a deep S wave in standard lead I. The initial forces are leftward causing a Q wave in lead III. Initial forces are

somewhat superior inscribing Q waves in leads II, III and AVF. In the horizontal plane an R' is noted in lead V₁. There is poor development of R waves across the precordial leads. There is modest ST segment elevation in leads V₁ through V₅ with T inversion in V₁ and V₂.

The tracing is presented as an example of the electrocardiogram in acute cor pulmonale. The

From the Department of Cardiology, St. Thomas Hospital, Nashville, Tenn.

TMA X-ray of the month

Clinical Presentation:

17-year-old black female with a three-week history of abdominal pain in the right lower quadrant.



FIG. 1

From the Department of Diagnostic Radiology, University of Tennessee College of Medicine, Memphis, Tenn. 38163.

Please examine these two films from an infusion urogram. Fig. 1 is a preliminary film. Fig. 2 a supine film following rapid infusion of a 300 cc sodium diatrizoate. Pick one diagnosis from the following:

1. Leiomyoma of the uterus.
2. Serous cystadenocarcinoma of the ovary.
3. Mucinous cystadenoma of the ovary.
4. Cystic teratoma.

(Answer on page 408)



FIG. 2

* * *

EKG of the Month

P waves in leads II, III and AVF are not tall and peaked as is often the case when right atrial enlargement is also present. The Q waves in II, III and AVF are not diagnostic of an infarction in this setting.

The patient was taken to the cardiac catheterization laboratory where the peak systolic pulmonary arterial and right ventricular pressures were 88 mm Hg with a mean pulmonary arterial pressure of 56 mm Hg. The right atrial A wave was 22 mm Hg with a mean pressure in the right atrium of 15 mm Hg. Pulmonary arteriography

showed massive pulmonary embolisation partially occluding both the right and left main pulmonary arteries. The patient was placed on heparin therapy and expired six hours later. Necropsy revealed massive pulmonary embolism without changes of chronic lung disease. There was no coronary arterial disease. The right heart chambers were markedly dilated. There was no myocardial scarring.

Final diagnosis: Acute cor pulmonale secondary to massive pulmonary embolisation.

HARRY L. PAGE, JR., M.D.
W. BARTON CAMPBELL, M.D.
Co-Directors

Elucidation:

Pertinent radiographic findings on the preliminary films are:

1. Soft tissue mass displacing small bowel from the pelvis.
2. Abnormal calcification overlying the midline of the sacrum.

Pertinent findings on the infusion urogram are:

1. Soft tissue mass of relative radiolucency in comparison to the solid viscera.
2. A "rim sign" represented by a thin discrete line of increased radio-opacity circumscribing the soft tissue mass.
3. The calcification seen on the preliminary film did not change in location. Fig. 3 is an oblique film showing the calcification projecting free from the sacrum and shows its tooth-like shape.



FIG. 3

4. The soft tissue mass has caused minimal hydronephrosis.

Operation:

A cystic teratoma measuring 9 x 11 x 16 centimeters

which contained 200 cc of clear yellow fluid, sebaceous glands, fatty tissue, one tooth, and neural tissue was excised.

Diagnosis: Cystic Teratoma

Discussion:

Benign cystic teratomas constitute between 5 and 25% of all ovarian neoplasms and are usually discovered between the ages of 20 and 40. The most common clinical presentation is that of nonspecific abdominal pain associated with an abdominal mass. Abnormal uterine bleeding is a less common complaint. Teeth are present in 30% of cystic teratomas and are pathognomonic of this tumor when present.

Other calcifications, including rudimentary phalanges or other body parts, may occasionally be present in these tumors. Malignant tumors associated with the various elements of a cystic teratoma are rare (approximately 1%). Treatment is surgical excision of the tumor, sparing ovarian tissue in young patients when possible. This therapy usually results in a total cure.

The "rim sign" is produced on roentgenograms in cystic teratomas because the mass is cystic with a rim of vascularized epithelium surrounding it which will accumulate contrast material. This sign is not pathognomonic of a cystic teratoma, as it may be observed in other cystic ovarian neoplasms. It has not been observed to our knowledge in solid pelvic tumors, however. The observation of the rim sign allows for the exclusion of diagnosis number 1. The tooth in the mass excludes diagnoses 2 and 3 and seals the diagnosis of cystic teratoma.

Summary:

Benign cystic teratomas may be diagnosed with confidence when they contain teeth. Presence of a soft tissue mass showing a central radiolucency and a discrete radiopaque rim during infusion urography further support the diagnosis.

JAMES F. EASTERLY, M.D.
STEPHEN L. GAMMILL, M.D.

REFERENCES

1. O'Connor, JF, Neuhauser, EBD: "Total Body Opacification in Conventional and High Dose Intravenous Urography in Infancy." *Amer J Roentgen*, 90: 63-71, July, 1963.
2. Phillips, JC, Easterly, JF, Langston, JW: Contrast Enhancement of Pelvo-Abdominal Masses, "The Rim Sign." Presented at the RSNA, November, 1973, Chicago, Ill.

Bence Jones Proteinuria

The pathological presence of proteins exhibiting unusual thermal properties, in the urine of patients with myeloma, has been widely known since its description by Sir Henry Bence Jones over 100 years ago. The frequency of occurrence of Bence Jones proteinuria has been generally established as approximately 40-60% of patients with myeloma, approximately a third of patients with primary macroglobulinemia, and much lower percentages of patients with other lymphoproliferative disorders. Using sensitive immunological techniques, however, these percentages increase, and such proteins may also be identified in small quantities in normal urines, and in significant quantities in the urine of patients with non-malignant conditions such as lupus erythematosus and renal tubular disorders. Unfortunately, "Bence Jones protein" (BJP) has become virtually synonymous with those proteins showing characteristic thermolability. However, it is important to remember that perhaps as many as half of all BJP will not perform in typical fashion in the heat test, and that it is the presence of the protein, not its thermal properties, that is of diagnostic significance.

BJP is a general term applicable to proteins originating from the light chain portion of the immunoglobulin molecule. Investigation has shown that such proteins may consist of fragments of the light chains, monomers and dimers ("typical" BJP), and polymers, accounting for the apparent heterogeneity of this protein class occasionally encountered. Such urinary proteins are not the only ones described in patients with myeloma and related diseases—also encountered are the now well-known "heavy chains" (rare) and even intact immunoglobulins (generally only seen with significant renal disease). For practical purposes, however, in the absence of pathological albuminuria (indicating abnormal glomerular permeability) the presence of a discrete globulin component indicates Bence Jones proteinuria (referring here to light chain components, regard-

less of their thermal properties).

Diagnostically, the presence of BJP is of importance, and almost invariably indicates the presence of a malignant proliferation of cells in the lympho-plasmacytic series. As is true for monoclonal serum immunoglobulins, BJP may appear in the urine before the diagnosis of myeloma becomes clinically apparent. The clinical significance of BJP is still under investigation, however. It is questionable whether there is a direct relationship between BJP and "myeloma kidney," and while some feel that the specific type of light chain present (either kappa or lambda) is of prognostic significance, this also is not universally accepted. There is some prognostic value in following the urinary level of BJP during therapy, a progressively decreasing level indicating, just as does a decrease in the serum M-component, a favorable therapeutic response. The rare presence of serum BJP does seem to correlate with the presence of severe renal impairment, although this may represent as much effect of the nephropathy as its cause.

To detect the presence of BJP, the standard urine "dipstick" is totally unreliable. Use of the dipstick method may be helpful, however, for a great discrepancy between the dipstick level of protein (representing virtually only albumin) and that of a heat and/or acid method (e.g., sulfosalicylic acid) which will detect globulin components as well as albumin, is suggestive of the presence of BJP. Similarly, the standard "screening" heat test for BJP should be discarded. A negative result does not exclude the presence of BJP, and a positive result needs further evaluation. Thus if the presence of BJP is being clinically investigated, urine electrophoresis or one of the immunological methods should be employed. This can be done on a concentrated early morning specimen, but a 24-hour specimen provides the additional benefit of allowing for quantitation of total 24-hour urine protein, approximate quantitation of the pathological globulin component, if present, and also provides an adequate volume of specimen with which to pursue further diagnostic tests, if indicated. As a word of caution, however the interpreter of such test results must be aware that polyclonal light chains may give confusing false positive results, and that false negative results can occur due to insensitive reagents and "prozone" with high-titered BJP-positive specimens.

DEAN G. TAYLOR, M.D.

From the Department of Pathology Methodist Hospital, Memphis, Tenn.



The Relationship of Psychiatric Hospitals To Community Mental Health Centers

For the past decade, the mental health field has experienced a broad wave of psychiatric reform. Alongside the law that created community mental health centers to care for the disturbed, there was the corollary implication that psychiatric hospitals should reduce their census and that even the most acutely disturbed could be more effectively treated through community psychiatry. Despite good intentions, some states have so literalized the movement to depopulate psychiatric hospitals that many mentally ill patients, helpless and isolated, find themselves on the other side of locked doors. The devastating consequence of having community mental health centers without psychiatric hospitals is that long-term chronically ill patients will have little chance to rehabilitate themselves; the reverse would portend a regression to the Middle Ages when the mentally ill, severely or slightly, were doomed to a life sentence within asylum walls.

The Tennessee Department of Mental Health posits that the co-existence of psychiatric hospitals and mental health centers is a vital instrument for providing a myriad of treatment modalities for mental patients who present a number of cares and concerns. Effective service of these two agencies is inextricably interwoven with the development of an integrated system of care and treatment of the mentally ill.

During recent years, the Governor of the State of Tennessee mandated the establishment of nine economic development regions for planning operational purposes. Tennessee is further divided into thirty catchment areas, each of which has the responsibility of at least one community mental health center. Five state-owned psychiatric hospitals serve the populace of designated economic regions¹ and receive patients referred by the com-

munity mental health centers that are located within those regions.

The staffs of the psychiatric hospitals and community mental health centers are encouraged to negotiate agreements for the centers to be the portal of entry and exist for the patient needing hospitalization. With screening and evaluation being conducted at the community mental health center, unnecessary hospitalization for many patients is avoided. In those cases where hospitalization is indicated, the agencies are urged to develop liaison personnel to work in regard to hospitalized patients who will later be referred to the community mental health center. The regular visitation of hospitalized patients by staff members of the referring center adds a needed dimension to follow-up care that the center later provides the discharged patient.

At present, there is one hospital-related community mental health center, (i.e., a CMHC that is the direct outgrowth of the hospital's program). Three other such centers are now in very initial stages of development and will be fully developed within the next year or two. The relationship envisioned for the hospitals and the affiliated centers will be somewhat more binding than that shared with the autonomous, free-standing centers. The Board of the affiliated center, of which the hospital Superintendent will be an ex-officio member will contract with the hospitals' Board of Directors to operate and administer the affiliated center's program. The two agencies will share personnel, patients' records, and facilities, and when geographically feasible, food services, equipment, and custodial arrangements. The hospital and affiliated center will participate in a unified treatment plan for each patient, which will include coordination of records and patient management modalities, and a monitoring system to follow the patient throughout his stay in the mental health system.

The goal of the Tennessee Department of Mental Health is to provide services and treatment from which patients experiencing mental illness may emerge more adaptively organized and more able to cope with problems. Psychiatric hospitals must develop programs to reduce the psycholog-

continued on page 412

¹The regional responsibilities are as follows: Eastern State Psychiatric Hospital in Knoxville, Regions I and II; Moccasin Bend Psychiatric Hospital in Chattanooga, Regions III and IV; Central State Psychiatric Hospital in Nashville, Regions V and VI; Western State Psychiatric Hospital in Bolivar, Regions VII and VIII; and Tennessee Psychiatric Hospital & Institute in Memphis, Region IX.

Cerebral Atrophy

Mental deterioration is an affliction of elderly people that is so common that the dotage of old age almost seems to be a part of our destiny. Occasionally, its severity is so acute or intense or the associated symptoms are so striking that we stop thinking of this deterioration as part of the natural course of events and direct our attention to an evaluation of the many degenerative diseases that involve the central nervous system. Of the 15 or 20 degenerative diseases that afflict the central nervous system and lead to mental deterioration in adults, only Parkinsonism, communicating hydrocephalus, and possibly arteriosclerotic narrowing of the carotid arteries seems to be amenable to therapy. The problem now confronting the clinician is to determine whether his patient with mental deterioration has one of these three diseases.

This 79-year-old lady had an episode of right sided weakness that cleared in a few days and

developed difficulty with speech, urinary incontinence, and increasing somnolence, for which she was readmitted to the hospital. Minimal right facial weakness was observed. Systolic carotid bruits were thought to be transmitted from a heart murmur. Skull x-rays were normal, as were brain scan and flow studies. A left carotid angiogram revealed minimal atherosclerotic changes at the bifurcation and suggested enlargement of the left lateral ventricle. She had mild diabetes and urinary tract infection which were quickly brought under control, and isotope cisternography was ordered.

A two ml aqueous solution containing 500 microcuries of Indium 111 DTPA was injected into the lumbar subarachnoid space. At 6, 24, 48 and 72 hours post injection, photographs of isotope distribution in the head were obtained using a Gamma Camera (Fig. 1). Although ventricular penetration of isotope was noted by 6 hours, it was not confined to the ventricles and,

RADIOISOTOPE CISTERNOGRAPHY

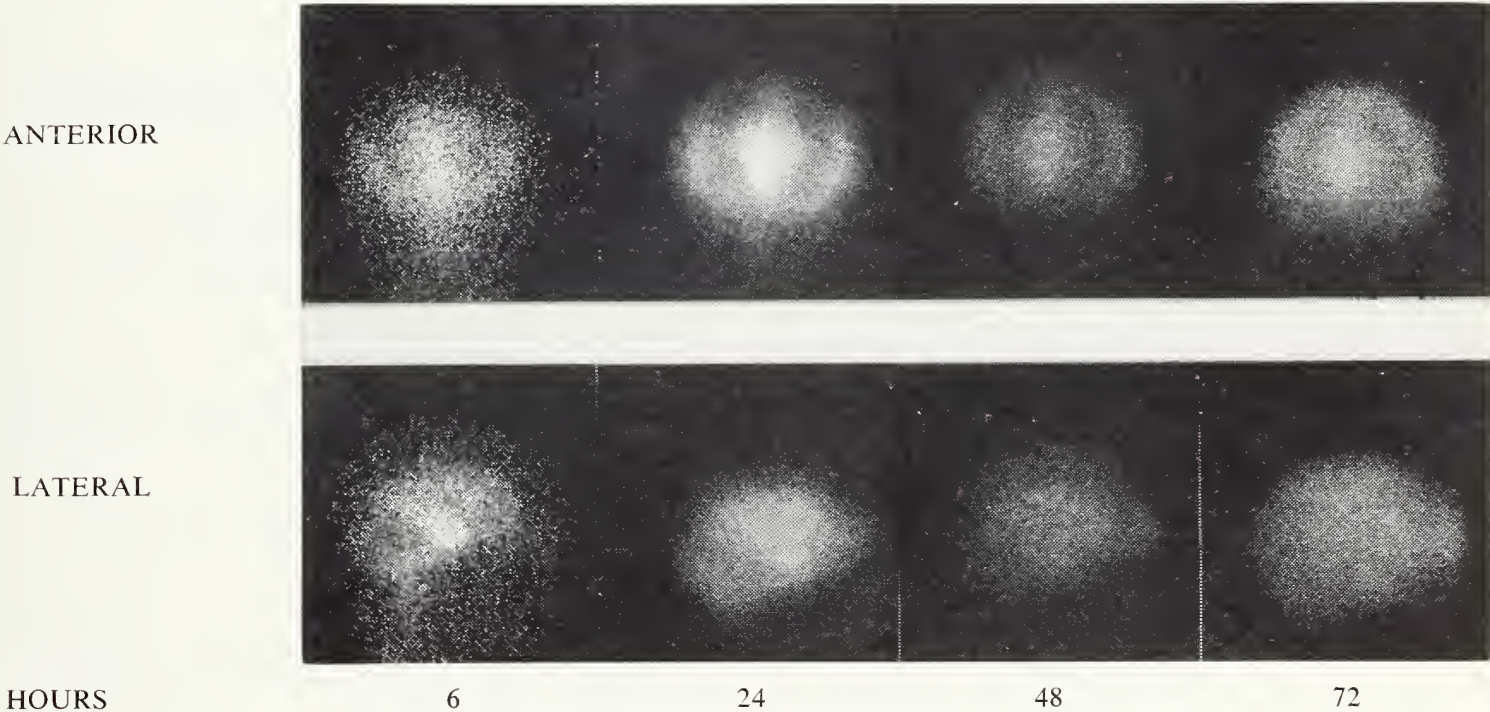


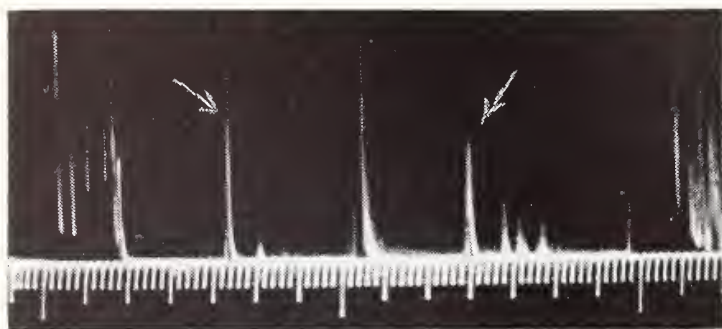
FIG. 1

was thought to be due to a transient ischemic attack. A few weeks after leaving the hospital she

From the Department of Nuclear Medicine, Park View Hospital, Nashville, Tenn. 37203.

in fact, slowly left the ventricular system. The movement of isotope from basal cisterns to subarachnoid space, and finally to the sagittal sinus (where it normally exits), could be ap-

ECHOENCEPHALOGRAM



Arrows point to Lateral Ventricles (5.6 cm)

FIG. 2

ical effects of chronic illness and the damaging preciated. Though this movement of isotope cisternogram clearly demonstrated that communicating hydrocephalus was not present. The echoencephalogram (Fig. 2) revealed dilation of lateral ventricles with no shift of the midline.

A classical case of communicating hydrocephalus would demonstrate: 1, a triad of symp-

* * *

From Dept. of Mental Health

continued from page 410

impact of long-term hospitalization. Community Mental Health Centers must recognize the necessity for a continuum of treatment in the community for earlier discharged as well as non-

toms that included mental deterioration, urinary incontinence of a cerebral type, and an ataxic gait; 2, dilated ventricles, and 3, isotope cisternography showing ventricular penetration and persistence and closing of the normal pathways for cerebral spinal fluid flow. Differentiation of communicating hydrocephalus from cerebral atrophy is critical, since most neurosurgeons and neurologists believe that surgical shunting of cerebral spinal fluid is not useful in primary cerebral atrophy, and usually is of help only in a very complete case of communicating hydrocephalus (preferably acute). Since patients with cerebral atrophy show dilated ventricles and may show 1 or 2 of the triad of clinical symptoms associated with communicating hydrocephalus, isotope cisternography generally is a critical test in the differentiation of these two disease entities.

ROBERT L. BELL, M.D.

Director

hospitalized patients. Through the collaborative efforts of mental hospitals and community agencies, appropriate treatment programs can be implemented, but more important, the integrity, i.e., the oneness, of the patient, can be maintained.

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from the tennessee department of public health

Rehabilitation Through Team Effort

Rehabilitation of the patient is a concept of vital concern to every hospital. Unfortunately, the concept too often works better on paper than in practice. Until recently rehabilitation was not working well at Memphis' West Tennessee Chest Disease Hospital as evidenced by a high frequency of readmissions.

The staff determined that the program's chief weakness was a lack of communication. Too many of the interested staff members—the nurse, social worker, dietician, etc.—were working individually to help the patient specifically in his or her particular area of concern, and each compiled a sizable amount of in-depth information, but there was insufficient exchange of this information among themselves.

Realizing that as a group they could offer a practical composite of the patient's problems and needs, they implemented last year a new concept in patient rehabilitation—the Discharge Planning Team.

Gaining An Overview

The Discharge Planning Team provides an overview of the patient's collective problems—whether physical, mental, social or economic. The team's membership is composed of staff personnel whose diverse areas of contact with the patient and his family provide the background essential to planning effective rehabilitation. Participating members include the assistant director of nursing, the inservice education coordinator, the head nurses from each floor, the chief dietician, the pharmacist, the director of respiratory physiology, the chaplain and the social worker. Hospital physicians attend the weekly team meetings whenever time allows, and always receive minutes of the meetings.

Interagency Cooperation

When a patient's problems extend outside the realm of the hospital's professional concern, community health or welfare agency personnel are invited to attend the meetings and offer input as to how their programs can help. An example of how this interaction can benefit the patient is provided in the case of a 50-year-old woman admitted to the hospital this past summer. The

woman had a diagnosed case of tuberculosis. She was found on admission also to suffer from diabetes melitis and was on oral medication. She was also blind.

The hospital's medical staff found her oral diabetic medication inadequate, and switched her to intravenously injected insulin. Because she was blind, this presented serious problems as her discharge date neared.

Discussing her case at the weekly team meetings, it was decided she should be taught how to give herself the insulin injections. The nursing staff succeeded in teaching her to handle the injections, but the nurses found it impractical to trust the blind woman with the critical step of filling syringes.

The case was brought before the team, who learned the woman lived with her mother, an elderly lady whom team members concluded could likewise not be trusted with the responsibility of filling syringes.

Representatives of the local health department participating in the discussion of this particular case offered to have a public health nurse visit the home and fill the syringes two or three times a week. The hospital pharmacist recommended the specific number and type of syringes which should be used. When the woman was discharged, the hospital staff was confident her medical needs would be cared for.

With members of the Discharge Planning Team coordinating their information and efforts among themselves and in cooperation with interested outside agencies, the woman's problems were resolved. But even with the team effort, it was a long, involved process. Without the team, a satisfactory solution would probably never have been reached.

Effective Continuity of Care

The Discharge Planning Team has not been in operation long enough for any precise evaluative data to be accumulated, but the hospital staff credits the program with vast improvements in its rehabilitation of the patient.

Through the Discharge Planning Team, the hospital is coming closer to meeting the essence of the concepts of patient rehabilitation through well planned continuity of care.

Medicine
Osteopathy

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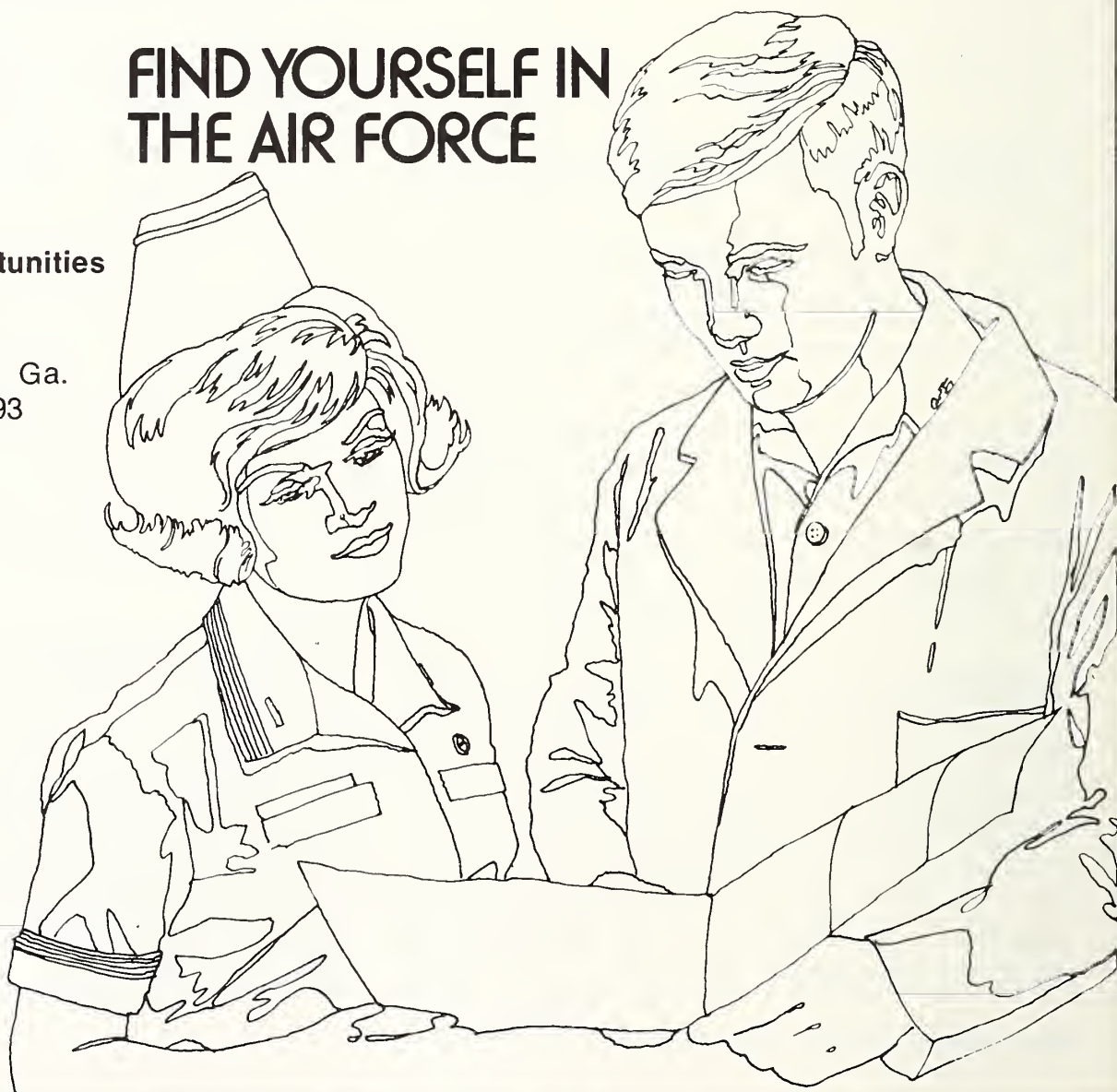
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MEDICAL DIGEST

NEWS OF INTEREST TO DOCTORS IN TENNESSEE

PHYSICIANS MAILED FOUNDATION MEMBERSHIP FORMS . . . Physicians in the No. 2 PSRO designated area for Tennessee (83 counties) have been sent membership forms by the Tennessee Foundation for Medical Care, Inc., soliciting membership in the organization . . . The Tennessee Foundation for Medical Care (TFMC) is the organization sponsored by the Tennessee Medical Association which has been established to administer PSRO in those counties with the exception of Shelby and eleven other counties . . . In order for the TFMC to receive a contract from the Federal Government to begin implementation of a PSRO, it is necessary for the organization to show that its membership includes at least 25% of all licensed doctors of medicine and osteopathy in the designated area . . . The application that was received by the physicians in the area is a membership form which should be filled in and returned immediately.

* * * * *

TENNESSEE MEDICAL SCHOOLS RECEIVED \$60,308.81 . . . The American Medical Association's Education and Research Foundation recently awarded checks to Tennessee's three medical schools . . . The University of Tennessee College of Medicine received \$33,617.15; Vanderbilt University School of Medicine, \$18,741.65; and Meharry Medical College of Medicine, \$7,950.01 . . . The checks were presented to representatives of the three medical schools by the TMA Committee on AMA-ERF, during the first session of the House of Delegates at the TMA Annual Meeting in Gatlinburg last month . . . The total amount received for Tennessee medical schools amounted to \$21,147.22 more than the amount received last year. The grants contained funds earmarked by donors for the medical schools as well as undesignated grants to the respective schools . . . A grand total of \$1,250,357 was awarded to U.S. schools, an increase of \$277,994 over 1972. More than \$659,870 of the grand total came from the Woman's Auxiliary nationwide . . . The Woman's Auxiliary of the Tennessee Medical Association played a major part in this effort last year.

* * * * *

HEALTH CARE REGULATION HEARINGS . . . The American Medical Association has registered strong opposition to S. 2994, the National Health Planning and Development Act of 1974. The bill would repeal CHP and RMP and establish a nationwide system of planning and development of health services through health planning agencies as well as specific government regulations, including rate setting authority over health services through State health commissions . . . The proposal would establish an unprecedented Federal involvement in matters which, under the Federal system,

have traditionally resided in local and state government. AMA spokesmen have testified and stated that, "this extreme measure is unwarranted, without justification based either in experience or need" . . . AMA spokesmen reviewed the history of CHP and RMP noting the lack of success in those programs, particularly within CHP . . . The AMA representatives questioned provisions in the measure which would greatly increase the authority of the Secretary of HEW. Listing specific instances in which the Secretary could intervene in state and local decisions, AMA stated, "we are surprised to find that all of the authority directed to be exercised by the State Health Commission can ultimately rest in the Secretary of HEW." AMA representatives questioned, "Is the performance of the Secretary of HEW and the Administration so exemplary and so unquestionable that he should be the ultimate repository of the total authority over the entire health care delivery system . . . ?"

* * * * *

TEXAS PHYSICIAN TO ASSUME TOP AMA STAFF POSITION . . . James H. Sammons, M.D., Baytown, Texas, who has been Chairman of the Board of Trustees of AMA, has been selected to become the Executive Vice President-Designate of AMA . . . Dr. Sammons was chosen for the position by the AMA Board of Trustees and he became a full-time staff member on April 1. He will succeed Ernest B. Howard, M.D., who will retire March 1, 1975.

* * * * *

CHIROPRACTIC EXAMS DENIED . . . The Federal Bureau of Motor Carrier Safety has denied a petition to allow chiropractors to perform required medical examinations on commercial drivers . . . A western state association of Chiropractors had petitioned the bureau for the rule change last year, but following arguments against proposed change, the AMA and other medical associations, as well as HEW opposition, had the petition withdrawn.

* * * * *

WAGE AND PRICE CONTROLS . . . The Senate Banking, Housing, and Urban Affairs Committee has tabled proposals which would have extended the Economic Stabilization Program. By a vote of 11 to 4, the Committee tabled the proposal sponsored by Senator J. Bennett Johnston, Jr., (D., La.) Chairman of the Subcommittee on Production and Stabilization and Senator Adlai E. Stevenson (D., Ill.). The compromise bill would have continued controls over those areas still subject to control as of April 30 (the date on which present authority expires) and would have provided standby authority over other sectors of the economy. In similar action, the full Committee unanimously tabled the Administration's proposal which would have retained controls only on the health sector. Tabling of a measure does not rule out reconsideration by the Committee. Reconsideration, however, is unlikely. On the House side, Representative Wright Patman (D., Tex.) Chairman of the Banking and Currency Committee, has indicated that it is unlikely that the Committee will report an extension of the Economic Stabilization Act.

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COMMUNICATIONS • LEGISLATION

HADLEY WILLIAMS, ASSISTANT EXECUTIVE DIRECTOR

KENNEDY, MILLS JOIN TO SPONSOR NATIONAL HEALTH INSURANCE BILL . . . Senator Edward Kennedy (D-Mass) and Congressman Wilbur Mills (D-Ark) have co-sponsored and jointly introduced the comprehensive National Health Insurance Act of 1974 (S. 3286 and H.R. 13870). The NHI proposal is similar to the Nixon Administration's proposal and represents a withdrawal from the position previously stated in S.3, the labor-sponsored Health Security Act. The new bill provides for inpatient hospital services with no day or dollar limitation, physician services and other medical services subject to an annual deductible of \$150 and 25% co-insurance. The deductibles, however, would not apply to certain items such as prenatal care, well-baby care, and dental care for children. The maximum deductible per family would be \$1,000 per year as opposed to \$1,500 under the Administration plan. The Kennedy-Mills bill would be mandatory, requiring participation and contribution from all persons. Practitioners would be free to participate in the program, but if they choose not to, they could not provide services under the system. A community-rated premium would be determined Nationally, and employers would be required to contribute 3% of payroll up to an earning level of \$20,000. Employees would contribute 1% of earnings up to \$20,000. Premiums would be collected through the Social Security system, and a new Social Security Board reporting directly to the President, would direct the program. Existing health insurance carriers would be retained to collect co-insurance and deductibles, make disbursements, and administer the transaction of insurance claims. The sponsors of the legislation further anticipate that private carriers would continue to write insurance policies covering supplemental benefits. All services reimbursed by the program would be subject to PSRO review within two years of the effective date for payment of benefits.

* * * * *

SECOND EUROPEAN TOUR DATE SCHEDULED . . . Because of the demand for space on the TMA sponsored 14-day European Adventure scheduled to depart Nashville and Knoxville, September 10, 1974, a second tour is being made available to members. This identical tour will depart Nashville four days earlier--September 6, 1974. The same itinerary will exist for both departures with the tour spending four days in Switzerland, four days in Germany and four days in Austria. Both tours will be handled by INTRAV of St. Louis. Cost for the European Adventure is \$998 which includes direct chartered jet flights, deluxe hotels, American breakfasts and gourmet meals at a selection of the finest restaurants. Interested members are urged to make their reservations as soon as possible.

in Brief

A summary of AMA, medical & health news

American Medical Association / 535 North Dearborn Street / Chicago, Illinois 60610 / Phone (312) 751-6000 / TWX 910-221-0300

A suit filed by the AMA against the Cost of Living Council in the U.S. District Court of the District of Columbia charged that economic controls on medical care are confiscatory, arbitrary, capricious and discriminatory. The AMA said Phase 4 controls on medicine violate the Fifth Amendment of the Constitution and the "generally fair and equitable" standard established by Congress. It further charged that the controls are designed "to curb the quantity and quality of health care services as an integral part of the legislative program to induce Congress to enact national health insurance." Later, AMA witnesses told a Senate Banking Subcommittee that the policies are unfounded in law and pose a "grave threat" to the quality and availability of medical care.

A Malpractice Mediation bill has been signed into law in New York. The measure, supported by the Medical Society of the State of New York, requires that all medical malpractice suits in the State be submitted to a mediation panel before a plaintiff can go to trial. Each suit must be screened by a three-member panel consisting of a state Supreme Court Justice, an attorney and a physician. The law takes effect September 1, 1974.

An analysis of the law of informed consent, published by the AMA in conjunction with the Medical Liability Commission, deals with various state-by-state applications of the law and contains excerpts of significant court decisions. Copies of the two-part analysis, *The Law of Informed Consent* and *Cases on Informed Consent*, developed by AMA's Legal Research Dept., were sent to medical societies and their legal counsels.

There were 9,845 more physicians in the U.S. at the end of 1973 than in the previous year. AMA's masterfile lists 366,379 MDs. The number of physicians providing patient care rose from 292,210 in 1972 to 295,257 last year.

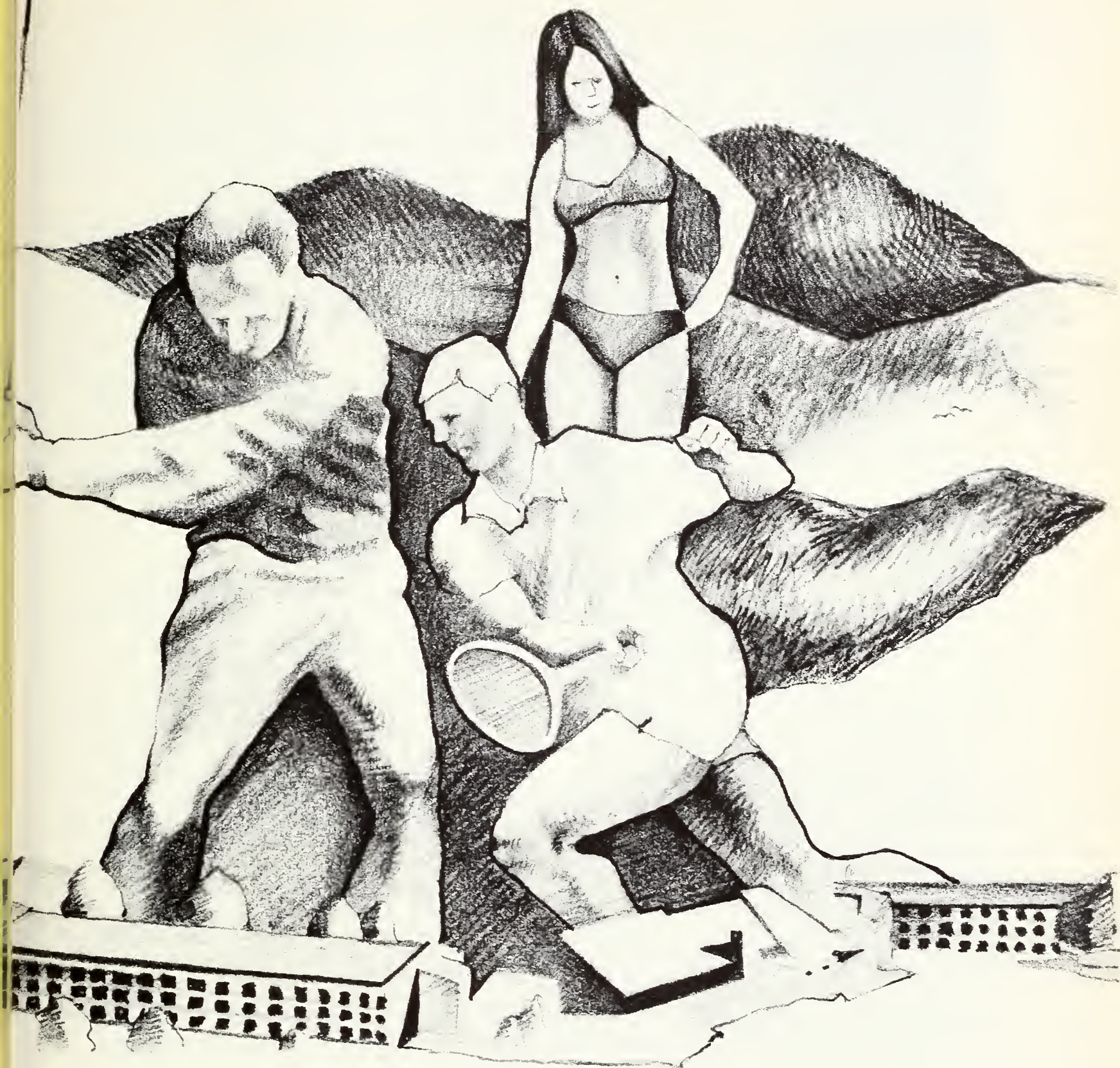
In a 153-44 decision, the House of Delegates of the Medical Society of State of New York, recently voted to amend its bylaws to require any physician applying for local or state

membership also to join the AMA. The amendment becomes effective Jan. 1, 1975. MSSNY dropped its mandatory AMA membership requirement in 1970, when legal counsel said it violated state antitrust laws. Legal counsel recently reported that the 1970 opinion was incorrect.

Nineteen out of 22 specialty boards have formally approved voluntary periodic recertification exams, according to the American Board of Medical Specialties. The American Board of Neurological Surgery opposes the concept and the American Board of Allergy and Immunology and the American Board of Nuclear Medicine have not taken an official stand. The American Board of Family Practice will make periodic recertification mandatory.

Beginning in April, *Today's Health*, a new national television series, will appear in a weekly half-hour format. Produced by Gittelman Film Associates in cooperation with AMA, the program will be distributed on a syndication basis. It is estimated that within a month or two, *Today's Health* will be on 100 stations, reaching about seven million people each week.

Available from AMA: *A Physician's Guide to Phase 4 of the Economic Stabilization Program*. Write Center for Health Services Research and Development, AMA Headquarters . . . An audiovisual presentation of the third edition of *Current Procedural Terminology*. Medical societies contact Dept. of Computer Systems in Medicine, AMA Headquarters, for use . . . *Employment and Use of Physician's Assistants, A Guide for Physicians*, an AMA booklet answering questions most often asked about PAs. Write Dept. of Health Manpower, AMA Headquarters . . . *Physicians' Guide to Medical Advice for Overseas Travelers*, an AMA pamphlet. For copies of OP-411, 60¢ each, write Order Dept., AMA Headquarters . . . *The Business Side of Practice Management*, a book designed for the physician considering private practice. To order OP-410, \$1.25 for single copies, \$1.15 each for 11-49 or \$1 each for 50 or more, write Order Dept., AMA Headquarters.

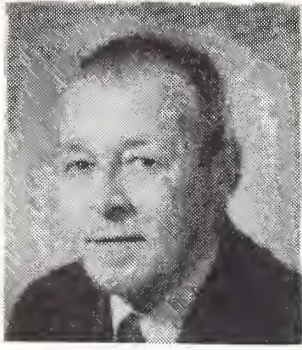


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E. KENT CARTER

**president's
page**

House Bill 12053 (Rogers' Bill) Legislation To Be Reckoned With

This particular type of legislation has been rumored in Washington for a considerable period of time. It now appears that the legislative bills have been prepared and are in the process of being sent to appropriate congressional committees. The bill is sponsored in the House by Representative Paul G. Rogers (D-Fla). There is a companion bill in the Senate—#2994. The purpose of this legislation is to repeal and replace Comprehensive Health Planning, Area Wide Health Planning, and repeal of the Regional Medical Program under Title 9. It would replace these with the following:

- a. *The National Council for Health Policy.* This would be a permanent council in the Executive office of the President. The Council would be responsible for assessing the nation's health needs and issue guidelines commensurate with their assessments. It would also prepare a comprehensive yearly report to the President and the appropriate government agencies.
- b. *Health Areas and Health Service Agencies.* The Secretary of HEW would divide the country into regions or health areas generally following state boundaries with population of 500,000 to 3,000,000 in each area. These could comprise more than one PSRO area or a PSRO area could comprise one or more health areas. Each area would have a Health Service Agency. This would be a non-profit agency incorporated in the state where it existed. It would have a staff of at least five persons and be governed by a ten-to-thirty member board representing the general population, providers and elected public officials. The Health Service Agency would make provisions for effective health planning and promotion within the area. It would also identify facilities which would meet identified needs within the area. (Shades of RMP.) It would establish annually and implement:

1. A long-range planning goal designated LGP, and
2. A short-term priority plan designated SPP.

It would have authority to make grants, enter into contracts with public and private entities for planning and developing. All use of Federal funds under this bill including Mental Health, Alcohol Abuse, Treatment, and Rehabilitation would be reviewed by the Health Service Agency and the agency would have the power to bar availability of funds subject to review by the Secretary of HEW. It would establish priority for Federal guarantees of construction loans within its area. It would approve or disapprove capital expenditures of over \$100,000 or more by health facilities. It would review and make recommendations to a State Health Commission for certification of health services proposed or offered in its health area, *these reviews and procedures to be established by regulations issued by the Secretary of HEW.*

- c. The bill would also establish a State Health Commission. This would be designated under contracts with the Secretary of HEW by the individual state. If so designated, the State Health Commission would provide for certain regulatory function and would be designated as the sole agency in the state to perform these functions.

The State Health Commission would be governed by 3 to 7 full-time persons appointed by the Governor or the State Legislature. Not more than one-half of these could come from the same political party. There would be an advisory council similarly appointed; two-thirds of whom would be representative of health service agencies in the state, elected public officials and the general public, not providers. The functions of the State Health Commission is specified in the bill and are as follows:

1. Annual approval or disapproval of the long-term and short-term priority plan of each Health Service Agency located in the state.
 2. Annual review of the Health Service Agency budget and a report to the Secretary of HEW on the budget.
 3. Review of planning and development grants under consideration by the Health Service Agencies.
 4. Would serve as a state planning agency in regard to expenditures over \$100,000.
 5. Periodic certification of need with respect to *proposed health services* or *offered health services* within the state.
 6. Licensure of health care facilities and health care personnel in the state.
 7. Set standards of health care providers and perform quality review of health services.
 8. Determine prospectively the rates of institutional and certain other providers, and regulate provider reimbursement.
- d. *Construction Assistants.* The bill would provide for loans both to the public and private entities up to 90%. The loans would require prior approval by the State Health Commission and they must meet State Health Agency priorities before approval by HEW. Priority given by the Secretary of HEW will be to ambulatory care first, rehabilitation second, emergency services third or a hospital in a rapidly growing area. Loans could cover new buildings, modernization of the old buildings initial equipment in a new building or equipment for a new health service in the community. The total funding for this bill would be in the neighborhood of \$389,000,000. It is a frightening piece of legislation which would appear to take the *complete regulation, financing and licensing of health facilities and health providers* out of the hands of the state, and place it directly under the Secretary of HEW through the various administrative commissions and agencies provided for in this bill.

If peer review was undesirable to the physician, this type of legislation not only is undesirable but appears to be completely unacceptable to the practice of medicine. Familiarize yourselves with this proposed legislation and contact your Congressman and Senator *NOW*. Do not delay.

Sincerely,

A handwritten signature in dark ink, appearing to read "E. Kent Carter". The signature is fluid and cursive, with a long horizontal stroke extending from the end.

PRESIDENT

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MAY, 1974

editorials

Medical Education in Tennessee

Governor Dunn's much publicized derogatory remark concerning this present legislature was doubtless made in a moment of pique, but it is a fact that in the matter of medical education in Tennessee it showed itself peculiarly refractory to both reason and the best interests of the health needs of its constituents. It is impossible not to conclude that in voting for a free-standing medical school in Johnson City, the legislature acted from purely political motives, since all reason dictated another course.

There is a lot more to founding a medical school than legislative fiat, or, as has become abundantly clear the country over, having an

imposing pile of bricks and mortar. Even assuming that the old VA hospital in Johnson City were a suitable physical plant, which it is not, staffing it is quite another matter. Many existing medical school departments are badly understaffed, and this is only partly a matter of limited funding. Good medical faculty members are in short supply. To staff any medical school solely, or even primarily, with local practitioners, as has been proposed, is an imposition on everyone, but it impinges most heavily on the persons already most desperately in need—the already underserved patients of those practicing physicians, which is the reason for all the flap in the first place.

Granting the many pleasant and desirable qualities of upper east Tennessee, it is still a relatively remote area, which is one of the major reasons for the physician shortage in the area. It certainly will be a discouraging factor in the formation of a faculty of first quality, and to settle for anything less is to deliberately choose mediocrity. We already have too many factors over which we are powerless pulling us in that direction.

Zubkoff and Dell have in their paper, in this issue, on the Tennessee physician shortage presented an imposing array of statistics, which at least indicate that Tennessee's problems are not likely to be solved by simply producing more medical students, even if they are locally recruited (and I would seriously question whether there are enough qualified people locally to fill a medical school. I will not even entertain the idea that *unqualified* people might be accepted and graduated).

Tennessee is in a very critical position regarding its medical education facilities. It has a state school which is at present on probation, though great strides are being made, under outstanding leadership, to overcome its difficulties. There are two private medical schools which have been leaders in the medical community both in the state and in the region, and which are now, because of the money squeeze and the withdrawal of federal support, facing serious financial difficulties. Many states are coming to the rescue of the private institutions within their borders. And with three underfunded medical schools, our legislature, recklessly and against all advice and reason, is proposing to establish a fourth, which will start with two strikes against it—an inadequate, jury-rigged physical plant and difficulties in faculty recruitment.

It is not too late. Perhaps next year we can elect a responsible legislature which will abandon this folly, and return to the recommended program of clinical centers, a plan which differs from our present course in that it is based on reason.

Get to work on it, each one of you—now!

JBT

The Rites of Spring— And Summer, and Fall

This is the time of year when schools are getting out and vacations of all sorts are starting. Flowers are blooming, and the green is back on the trees and lawns, bringing an added source of air and noise pollution. Swimming pools are opening, and golf courses and tennis courts are busy. In short, not a time to add other serious thoughts to those of patient care, or to take on additional work.

But also at about this time, in even numbered years—of which this is one (or, at least, I have been acting on that assumption for several months already)—something else happens. It began with stage-whispered intentions and *sotto voce* disclaimers sometime earlier, but by now—you guessed it: hats are in the ring, and candidates are off and running.

If this sounds like the beginning of a humorous editorial, it's not. It is dead serious. Not only serious, but critical. What I'm saying is, it's election time, folks—and, unhappily, about now I lose a big part of my readers. I hadn't better.

I hear a lot of complaining on the part of colleagues (not to mention friends in business and other professions) about the state of the economy, health care delivery, PSRO, government health insurance—you name it. When I ask them what they are doing about it, a gratifying number are doing something. (Who, me? I'm writing this editorial, that's what!) But a lot of you are "too busy." That's why, for example, we have PSRO, and even the threat of socialized medicine. We were "too busy"—too busy "taking care of patients" to get involved with "dirty politics." And so, though, we took care of a lot of them for nothing, it still costs money to get hospital care, and instead of medicine's developing its own insurance programs, first the private carriers and then the government got into the act, and now Senator Kennedy and his sub-committee are looking down our throats—all because, or at least mainly because, we were too busy. Doubtless

you can think of other instances.

So what can *you* do? Well, short of running for office yourself—and some of our colleagues are doing just that—you can, first, become informed on the issues, and see where you stand on them, decide what issues have priority, and then look around for your candidate(s). Support him (them) in any way you can. All of us have contact with lots of people, many of whom would take your advice in politics as quickly as they will take your medical advice (I know that sometimes isn't very quickly). You can write letters, make phone calls, even get your wife involved—and then, there's money!

And *then* there's IMPACT—Independent Medicine's Political Action Committee in Tennessee (there's always someone who never heard of it)—and then, *there's* your money's *worth*! Support IMPACT. It is non-partisan. It looks for candidates whom the committee feels are most likely to listen to Medicine's views—maybe not always vote with us, but listen, and weigh. The candidate should be a man who has a chance of winning, with a little help. They help (or *we* help—I hope I can say *we* to include *you*! I already belong.

When in doubt, send money. It's \$25.00 minimum contribution, but for \$50 more you can be a sustaining member and get a special lapel pin. It's a good conversation piece. In helping IMPACT you help yourself. Why not do yourself a favor? (Never heard of it? Call TMA.)

GET INVOLVED!

JBT

PSRO—ad nauseum

I'm sure you're as tired of reading about PSRO as I am of writing about it, but since our being tired of it will not make it go away, I do not intend to stop writing about it. I hope you are mature enough to realize that our wishes do not always coincide with reality, so that you will not stop reading about it, either. It is vital to your future and to the welfare of your patients that you remain informed—and accurately informed. I do the best I know how to see that the information contained in these pages is accurate (though occasionally even I slip up).

Unfortunately, but also not surprisingly, the whole matter of PSRO is inflammatory and emotionally charged. Many statements have been

made by colleagues of ours impugning the intelligence, veracity, and motives of others of our colleagues. I should like to go on record that inflammatory statements and even the examination of motives serve no useful purpose, but only further cloud the issue and hide the facts.

Public Law 92-603, of which the PSRO legislation is a part, consists of the amendments by the 92nd Congress to the Social Security Act. To say that it is not the law of the land is pure escapism, for no matter how much one wishes it were not, it is so. No more than any other law in our land is it immutable, but it *is* the law. Fortunately your TMA House of Delegates at its meeting just over had the wisdom to reject a resolution urging non-compliance and to adopt a resolution that until such time as the law is repealed, we must work to implement it in the most effective way we can, and in case repeal is not possible (which we can probably be assured it is not), seek to amend it in such a way as to remove the less workable portions.

Now to return to the matter of repeal of the PSRO law, or Section 249F of Public Law 92-603. If one intends to work for repeal of this section of the law, he should pray earnestly for the repeal of the entire Social Security Act, of which this section is only a small part—something which is so unlikely as to be outside the realm of possibility.

Section 249F, or the PSRO law, was introduced by Senator Wallace F. Bennett of Utah as an amendment to H.R. 1 of the 92nd Congress, and was adopted as a part of that bill and signed into law by the President. Published below is a letter to the Editor from Senator Bennett, with an attachment which is a portion of an address by him earlier this month (April 2) before the 93rd Congress, in which he outlines some things which are of utmost importance to you. You must read and act on them.

In an earlier address Senator Bennett said, "It is particularly important to note that all of the review responsibility and authority which a PSRO may assume is separately authorized, under non-PSRO provisions of the law, to the Department of Health, Education, and Welfare and to the carriers and intermediaries under medicare as well as to State agencies under medicaid. In a speech later this week, I will cite all of those statutory authorities—other than PSRO (*listed below.—Ed.*)—so that the advocates of PSRO repeal may understand fully that the absence of the PSRO

statute would not leave a review vacuum. Necessary review will be accomplished with or without the PSRO provisions. What the PSRO alternative offers, however, is professionalism and local control instead of bureaucratic fiat, mandate and arbitrariness in determining medical necessity and quality of care.

"In capsule form, the PSRO legislation was designed to afford practicing physicians at local levels an opportunity, on a voluntary and publicly accountable basis, to undertake review of the medical necessity and quality of care provided under the \$25 billion medicare and medicaid programs. It was intended to substitute responsible, comprehensive professional review by the community of physicians in an area for the hit-or-miss review which has heretofore been provided in less than effective fashion by Government and insurance company personnel."

Senator Bennett is no more immune than the rest of us to the occasional use of inflammatory language and I have deleted from his statement all such as being counterproductive. Even so, dignity demands that we rise above pettiness in the interest of our profession, ourselves, and, still more important, the welfare of our patients. Do what you wish about working for repeal or amendment. But do it on the basis of being fully informed. And above all, do not be deceived by those who would tell you PSRO is not the law of the land—which it is—and that it is the worst thing that could happen to us—which it is not. There are much worse things in the same law, as you will see if you read Senator Bennett's statement.

Also in this issue is a paper by Bland Cannon, M.D., a former president of TMA, a Memphis neurosurgeon, and a member of the AMA Council on Medical Education, which explains about PSRO as it applies to you, and what AMA is doing about it. In addition to what he says, a more recent development is a series of 18 amendments to PL 92-603 submitted to the Congress by AMA. By the time you read this, there will doubtless be other developments. We'll try to keep you posted.

As my mother used to say, "It's not what you want that does you good—it's what you get." What we will get if we default on our responsibilities of PL 92-603 seems pretty clear. It is also pretty clear, at least to me, that we will have deserved it.

JBT



To the Editor:

During the past year or so, much misinformation and distortion has been circulated with respect to the PSRO statute which I sponsored. Inaccuracies, half-truths, and one-sided presentations have been widely circulated concerning PSRO.

What we have seen is a plethora of gloomy prognoses concerning PSRO, coupled with little or no diagnosis.

To facilitate understanding of the program and to address specifically the principal negative allegations with respect to PSRO, I am sending a copy of an extensive statement I made before the Senate on April 2, 1974. (*Printed below—Ed.*) The allegations to which responses are made include those related to:

1. "PSRO was hastily enacted."
2. "The law requires development and application of norms of care which would lead to "cookbook medicine."
3. "The PSRO program would violate confidentiality of patient records."
4. "The costs of Professional Standards Review will outweigh any savings."
5. "Under the law, fines may be imposed upon physicians, and these fines will have a stultifying effect on medical practice."

In addition you will find a listing of all the principal general and specific review provisions of the Social Security Act authorizing review activities. I want to emphasize that these are non-PSRO provisions of the law, and I believe you will agree that these non-PSRO authorities constitute virtually a blank check for review far broader than PSRO and without the constraints and safeguards contained in my amendment.

I trust that this information contributes to better understanding of PSRO, as well as placing the PSRO statute in proper perspective.

Sincerely,

WALLACE F. BENNETT

United States Senator from Utah

From the *Congressional Record*,
93rd Congress, Second Session
Vol. 120, No. 46

. . . MR. BENNETT: Mr. President, PSRO is a complex law. It is complex because it deals with a highly sensitive area and effort was made, to the extent feasible, to assure chapter and verse clarity in the statute. There has been a failure by its opponents to call attention to the onerous alternatives to PSRO which are already on the statute books and which stand ready to operate in the absence of PSRO. I have attached as an appendix, references to those other provisions in present law. One example is the abortive proposal by the Secretary of Health, Education, and Welfare to require prior approval on all elective medicare and

medicaid hospital admissions. The authority for that requirement lay in non-PSRO provisions of the Social Security Act. This, of course, is apart from the drastic and almost radical legislative proposals to control medical practice which are waiting in the wings and which, of course, I do not support.

The voluntary nature of PSRO establishment and participation by practitioners in an area should also be stressed. Where they choose not to do so, the community of physicians in an area are not required in any way to undertake a PSRO operation. PSRO is an opportunity for professional self-control which may be declined.

I will try to respond to the principal allegations which have been raised by advocates of PSRO repeal. Before doing so, it might be helpful to note that all of the review activities which a PSRO is expected to undertake were generally authorized under the Social Security Act prior to the PSRO legislation. Our motive in enacting PSRO was to give practicing physicians priority in undertaking this activity rather than utilizing bureaucrats and insurance company personnel to review care provided under the \$25 billion medicare and medicaid programs. . . .

ALLEGATION:

"A law of such consequence should have been written with a proportionate amount of forethought. But the forethought was meager. It is the law itself that was a creature of impulse—as its background makes clear."

ANSWER:

The professional standards review legislation was the product of years of effort representing the input and testimony of many individuals and organizations. Its genesis was the American Medical Association's own PRO proposal which they asked me to consider introducing in early 1970.

In fact, this amendment was before the public from July 1970, when I first announced my intention to introduce the legislation, to October of 1972 when it became law. It was the subject of extensive public testimony in hearings before the Finance Committee in 1970 and 1971—including testimony from the American Medical Association, the Council of Medical Staffs and the American Association of Physicians and Surgeons—and it was also testified to during the course of overall health insurance hearings before the House Ways and Means Committee in 1971. It was formally before the Committee on Ways and Means in the form of H.R. 7182, a bill "to amend the Social Security Act to provide for the establishment of Professional Standards Review Organizations." That bill, in many respects similar, and in others identical to mine, was sponsored by Congressmen Devine and Betts. Mr. Betts was a member of the Committee on Ways and Means. It was passed twice by the Finance Committee as an amendment to appropriate social security-medicare bills, twice by the full Senate—including Senate rejection by a vote of 18 to 48 of a specific amendment by Senator Curtis of Nebraska to delete the PSRO provision—and it was considered and approved by a conference committee of both Houses and finally signed by the President into law was Public Law 92-603 on October 30, 1972.

In addition, the amendment was subject to much discussion in the health care field. It might be an interesting exercise to total up the column inches in the *AMA News*—the weekly newspaper of the AMA—which were devoted to PSRO from August of 1970 to October of 1972.

The AMA's own "Medical Backgrounder" on PSRO's legislative history contains the following statements:

Senator Wallace Bennett of Utah used the AMA concept as a base and developed the PSRO Program. A basic difference between the AMA and Bennett approaches was that under PSRO, a State medical society could not be the reviewing agency. Rather, a new organization must be created."

AMA had other objections: The requirement for advance approval of admissions to hospitals for elective surgery, national "norms" of health care, monetary fine for violations of certain provisions and Government ownership of the records of patients and physicians. *The Senate Finance Committee modified PSRO in each of these areas to at least some degree.*"

Mr. President, the AMA's own words leave very little to the imagination. Basically, what they wanted they could not have—the formal and legal vesting of PSRO responsibilities with State medical societies. That would have been highly inappropriate in a public program utilizing public trust funds.

ALLEGATION

The law requires development and application of "norms of care" which would lead to "cookbook medicine."

ANSWER

Here is another area where private health insurers and the medicare and medicaid administrators had been applying their own criteria of care—almost always retrospectively—in determining whether to approve or disapprove a claim for payment. In contrast, the PSRO legislation seeks to substitute professionally developed norms and parameters of care which are the product of the work of practicing physicians in the area. . . .

The statute does not speak to a single norm or way of treatment as the definitive and only type for which payment will be made. Rather, it refers to the "range of norms" acceptable to the PSRO for a given diagnosis. Section 1156(b) states:

Such norms with respect to treatment of particular illnesses or health conditions shall include (in accordance with regulations of the Secretary)—(1) the types and extent of the health care services which, *taking into account differing but acceptable modes of treatment and methods of organizing and delivering care are considered within the range of appropriate diagnosis and treatment of such illness or health condition, consistent with professionally recognized and accepted patterns of care.*

This acceptable range may well include patterns of care which serve to decrease the concern with and incidence of "defensive medicine." Further, and of great importance, is the fact that these norms and parameters are only checkpoints—developed by the practitioners themselves—related to age and diagnosis which simply serve to establish reasonable points at which the attending doctor should indicate the need for con-

tinued care or service or why certain services were not provided. Assuming the PSRO approves care beyond these checkpoints, it would be paid by medicare and medicaid without each case being second-guessed by carriers, intermediaries, or State agencies. This would replace the use of arbitrary 7th day, 12th, or 18th day kind of review unrelated to age or diagnosis which has obtained in the programs heretofore. It allows a physician to explain to another practicing physician—rather than those same carriers or intermediaries—why his patient needs certain care and treatment.

The alternative to appropriate professionally developed checkpoints in determining reasonableness for payment with public funds is to have no reference points, which obviously is an untenable position. The PSRO manual, just released, has two sections which put this all in perspective:

In each of its review activities, the PSRO will use norms, criteria, and standards which are useful in identifying possible instances of misutilization of health care services or of the delivery of care of substandard quality. *The PSRO is responsible for the initial development and on-going modification of the criteria and standards and the selection of the norms to be used in its area.* While PSRO's will structure themselves in many ways to perform those duties, *the overall responsibility for the development, modification and content of norms, criteria and standards rests with the PSRO.*

Norms, criteria, and standards should be used in each type of PSRO review. They should, at least, be used for the initial screening of cases to select those cases requiring more in-depth review. *In-depth review should be performed by peers using a combination of more detailed norms, criteria and standards and an assessment of a patient's individual clinical and social situation and the resources of the institution in which care is provided.*

And as the Finance Committee stated in its report on PSRO:

Neither should the use of norms as checkpoints nor any other activity of the PSRO, be used to stifle innovative medical practices or procedures. The intent is not conformism in medical practice—the objective is reasonableness.

Resolution 56 approving the development of PSRO norms was adopted by the American Medical Association at its Clinical Convention in 1972. No. 56 SPECIFICATIONS FOR DEVELOPMENT OF NORMS FOR CARE, DIAGNOSIS, AND TREATMENT . . .

The AMA's resolution is completely in agreement with the language and intent of the PSRO statute and report.

ALLEGATION

The PSRO program would violate confidentiality of patient records.

ANSWER

Private health insurers, such as Blue Cross-Blue Shield, have been reviewing medical records for many years—long before PSRO and long before medicare. Granted, that review has not always been done discretely nor confidentially. The PSRO legislation, however, in contrast, has specific statutory safeguards designed to safeguard patient identity and confidentiality.

First, section 1155(a)(4) states that each PSRO shall utilize—

. . . to the greatest extent practicable in such patient profiles, methods of coding which will provide maximum confidentiality as to patient identity and assure objective evaluation.

Second, section 1166 is entitled "Prohibition Against Disclosure of Information." and reads as follows:

(a) Any data or information acquired by any Professional Standards Review Organization, in the exercise of its duties and functions, *shall be held in confidence* and shall not be disclosed to any person except (1) to the extent that may be necessary to carry out the purposes of this part, or (2) in such cases and under such circumstances as the Secretary shall by regulations provide to assure adequate protection of the rights and interests of patients, health care practitioners or providers of health care.

(b) *It shall be unlawful for any person to disclose any such information* other than for such purposes, and any person violating the provisions of this section shall, upon conviction, be fined not more than \$1,000, and imprisoned for not more than six months, or both, together with the costs of prosecution.

PSRO was developed building upon the PRO proposal of the American Medical Association. The AMA's legislative proposal did not contain any specific provisions directed toward safeguarding confidentiality.

The PSRO statute—section 1155(a)(1) and section 1155(b)(3) specifically limit review activities and access to records to Social Security Act health care programs—namely, medicare and medicaid.

The provision authorizing access to medicare or medicaid patient records in a physician's office is a residual authority intended to be exercised only in highly unusual or exceptional situations—certainly not routinely. For example, a PSRO may have reason to believe that in a given case, substantial discrepancies may exist between the services indicated as provided on a claims form and those actually provided. It is my understanding that the Office of Professional Standards Review in Health, Education, and Welfare is developing extensive guidelines on the maintenance of confidentiality, including material spelling out the intent that this access to records in an office is limited to highly unusual or exceptional circumstances as delineated in the guideline.

ALLEGATION

The costs of PSRO review will outweigh any savings.

ANSWER

Appropriate professional review mechanisms do cost substantially. However, the experience with the operating PSRO prototypes—such as those in Colorado, New Mexico, Utah, and Sacramento and San Joaquin Counties in California—evidences substantial cost savings above the costs of the review process itself—apart from considerations of enhanced quality of care—as well as establishing the fact that the review activities do not require inordinate or unjustified requirements on physician time.

Of course, the Government is already spending a significant amount on review activities in medicare and medicaid. As the PSRO's assume full responsibility,

those other review activities would terminate with commensurate cost offsets against PSRO expenses. Considering the \$25 billion now spent on medicare and medicaid, the cost of PSRO review efforts will be relatively small.

ALLEGATION

Under the law, fines may be imposed upon a physician and these fines will have a stultifying effect on medical practice.

ANSWER

In actuality, the law does not contain any provision calling for fines. The original Bennett amendment did include a provision authorizing fines, but that was dropped subsequently. The PSRO statute does contain a provision allowing the local doctors to recommend a series of sanctions on a physician who flagrantly or consistently orders or renders services which are either unnecessary or of improper quality. Under sections 1862 and 1903 of the Social Security Act—non-PSRO sections—the Secretary has the authority to suspend a physician from the programs. Under the PSRO provision, the local physicians themselves, rather than the Secretary, would have the authority to recommend appropriate sanctions. These sanctions could either be suspension, or, if they decided a less severe sanction was called for, they could recommend repayment by the practitioner of the actual costs paid by the Government, not to exceed \$5,000, if excessive services had been rendered. It would be difficult to construct an effective peer review law which had no sanctions—such as the recovery provision—since the local physicians would then have no way to deal with an improper situation. . . .

Mr. President, I ask unanimous consent that a listing of the principal review provisions in the Social Security Act—other than professional standards review—be printed in the RECORD.

There being no objection, the listing was ordered to be printed in the RECORD, as follows:

PRINCIPAL GENERAL AND SPECIFIC PROVISIONS OF SOCIAL SECURITY ACT (OTHER THAN PSRO PROVISIONS OF LAW) AUTHORIZING AND REQUIRING REVIEW ACTIVITIES

I. ACCESS TO RECORDS AND OTHER DATA

Medicare

Intermediaries—Section 1816(a)(2)(B) . . . "to make such audits of the records of providers as may be necessary to insure that proper payments are made under this part . . ."

Carriers—Section 1842(a)(1)(C) . . . "to make such audits of the records of providers of services as may be necessary to assure that proper payments are made under this part . . ."

Medicaid

Section 1902(a)(27) . . . "provide for agreements with every person or institution providing services under the State plan under which such institution or persons agrees (A) to keep such records as are necessary fully to disclose the extent of the services provided to individuals receiving assistance under the State plan, and (B) to furnish the State agency with such information, regarding any payments claimed by such person or

institution for providing services under the State plan, as the State agency may from time to time request . . ."

II. GENERAL REVIEW REQUIREMENTS

Medicare

Section 1862(a)(1) . . . "Notwithstanding any other provisions of this title, no payment may be made under part A or part B for any expenses incurred for items or services—(1) which are not reasonable or necessary for the diagnosis or treatment of illness or injury or to improve the functioning of a malformed body member . . ."

Medicaid

Section 1902(a)(30) . . . "provide such methods and procedures relating to the utilization of, and the payment for, care and service available under the plan (including but not limited to utilization review plans provided for in Section 1903(i)(4) as may be necessary to safeguard against unnecessary utilization of such care and services and to assure that payment (including payments for any drugs provided under the plan) are not in excess of reasonable charges consistent with efficiency, economy and quality of care . . ."

III. STATEWIDE PROGRAM REVIEW TEAMS

Medicare

Section 1862(d)(4) . . . "(4) For the purposes of paragraph (1)(B) and (C) of this subsection, and clause (F) of section 1866(b)(2), the Secretary shall, after consultation with appropriate State and local professional societies, the appropriate carriers and intermediaries utilized in the administration of this title, and consumer representatives familiar with the health needs of residents of the State, appoint one or more program review teams (composed of physicians, other professional personnel in the health care field, and the consumer representatives) in each State which shall, among other things—

(A) undertake to review such statistical data on program utilization as may be submitted by the Secretary.

(B) submit to the Secretary periodically, as may be prescribed in regulations, a report on the results of such review, together with recommendations with respect thereto.

(C) undertake to review particular cases where there is a likelihood that the person or persons furnishing services and supplies to individuals may come within the provisions of paragraphs (1) (B) and (C) of this subsection or clause (F) of section 1866(b)(2), and

(D) submit to the Secretary periodically, as may be prescribed in regulations, a report of cases reviewed pursuant to subparagraph (C) along with an analysis of, and recommendations with respect to, such cases."

IV. AUTHORITY TO SUSPEND PRACTITIONERS AND PROVIDERS

Medicare

Section 1862(d)(1) . . . "No payment may be made under this title with respect to any item or services furnished to an individual by a person where the Secretary determines under this subsection that such person— . . . (C) has furnished services or supplies which are determined by the Secretary, with the con-

currence of the members of the appropriate program review team . . . who are physicians or other professional personnel in the health care field, to be substantially in excess of the needs of individuals or to be harmful to individuals or to be of a grossly inferior quality.

(2) A determination made by the Secretary under this subsection shall be effective at such time and upon such reasonable notice to the public and to the person furnishing the services involved as may be specified in regulations. Such determination shall be effective with respect to services furnished to an individual on or after the effective date of such determination (except that in the case of inpatient hospital services, posthospital extended care services, and home health services such determination shall be effective in the manner provided in section 1866 (b) (3) and (4) with respect to terminations of agreements), and shall remain in effect until the Secretary finds and gives reasonable notice to the public that the basis of such determination has been removed and that there is reasonable assurance that it will not recur."

Medicaid

Section 1903(i) . . . "Payment under the preceding provisions of this section shall not be made . . . (2) with respect to any amount paid for services furnished under the plan after December 31, 1972, by a provider or other person during any period of time, if payment may not be made under title XVIII with respect to services furnished by such provider or person during such period of time solely by reason of a determination by the Secretary under section 1862(d)(1) or under clause (D), (E), or (F) of section 1866(b)(2) . . ."

GENERAL AUTHORITY OF SECRETARY TO ISSUE REGULATIONS AND ASSURE COMPLIANCE

Social security act programs

Section 1102 . . . "The Secretary of the Treasury, the Secretary of Labor, and the Secretary of Health, Education, and Welfare, respectively, shall make and publish such rules and regulations, not inconsistent with this Act, as may be necessary to the efficient administration of the functions with which each is charged under this Act."

Medicare

Section 1871 . . . "The Secretary shall prescribe such regulations as may be necessary to carry out the administration of the insurance programs under this title . . ."

* * *

PHYSICIAN ORDER WRITING

March 29, 1974

To the Editor:

I am writing in response to your editorial "on prescribing drugs" which appeared in the February 1974 issue of the TMA JOURNAL. You stated ". . . I urge you to be certain that your prescriptions are written legibly and that you make sure that the floor nurse accurately transcribes your verbal orders." In light of the list of drugs published following that editorial whose names not only look alike but sound

alike, it would seem to me that if physicians desire to really reduce the element of human error, they should make sure they write their medication orders so that the floor nurse may transcribe them accurately. While verbal orders are often a necessity, in some instances, written orders can be a safe-guard to the patient. Certainly the discussion of the medical plan of care and the nursing plan of care between the physician and the nurse can help to identify any inadvertent error and correct it early. Thus, when verbal orders are required, a physician and nurse in reviewing elements of the patient's care can verify how orders have been transcribed. When registered nurses are aware of the medical plan of care as well as specific drugs that may be ordered, they are in a better position to help minimize errors that might occur.

(MRS.) REBECCA CLARK CULPEPPER, R.N.
Executive Director
Tenn. Nurses' Association
1720 West End Bldg., Suite 400
Nashville, Tenn. 37203

RX OF OBESITY

26 March, 1974

To the Editor:

The article on surgical approach to morbid obesity in your March issue, from the Vanderbilt group, presents an example, perhaps, of the blunder to which a "committee" is prone. Goethe remarked something similar once, to the effect that it was most depressing to consider Germans in the aggregate, capable of the greatest inanities, who individually were highly capable and respected, loveable and even praiseworthy.

We once had a President who punished Seventh Army troops with the dictum: "shape up or ship out." After a few obedient, obese top kicks had kicked the bucket jogging along under Kennedy's notion of physical fitness, cardiac deaths occasioned by this unaccustomed exertion, our Seventh Army medical people advised a change. Fatties—morbid and otherwise—were collected and marched to the responsible medical officer. Unit commanders, responsible noncoms, Mess Officers were involved in supervising diets. Followup was by the physician-medical officer.

What was learned can be summarized as follows:

- 1) Obese people are primarily anxious people.
- 2) Obese people tend to avoid eating early in the day, and without exception eat heavily within six hours of bedtime.
- 3) One fatty in ten wants to lose and is willing to change his lifestyle for at least six months.
- 4) It is possible for an 18 year old male to lose 90 lbs. in six months, ending at normal weight for height and age; and for a 45 year old male to lose 45 lbs. in six months, ditto, simply by encouraging and providing a heavy balanced breakfast free from the regular greasy, starchy chow line, eaten before 8 A.M. daily, as long as there is no appreciable caloric intake after 2 P.M., with "salad foods" provided, high in cellulose, as the supper meal and for subsequent evening snacks. (One "free night" per week was allowed, with all

the beer and pretzels desired at a local German Gasthaus).

What can be inferred is perhaps useful, whether we practice at Vanderbilt or in Knoxville:

- 1) There are some problems better left alone or to real experts.
- 2) Perhaps peer group psychotherapy has more to offer than heroic surgery, for the morbidly obese. We have seen fatal outcome from this surgery: myocardial infarction postop, etc.
- 3) The weight is a symptom, not a disease.
- 4) The patient must provide his own prime motion in any change of lifestyle.
- 5) The "professionals" who help the morbidly obese must be emotionally and intellectually prepared to accept a 90% "failure." Sort of a "no-fault" failure might be best.

ROBERT PRESTON HORNSBY, M.D.
606 Main Avenue, S.W.
Knoxville, Tennessee 37902

To the Editor:

I am currently editing a book on the personal testimonies of Christian physicians and how they view the current medical-ethical issues of today, i.e., abortion, euthanasia, organ transplants, when is a person officially dead, sterilization, psycho-surgery, semen donors, ovum donors, host mothers, reversed aging, artificial organs, genetic counseling, etc. I would be interested in hearing from any Christian physician who would be interested in contributing to such a book or who would be able to suggest a Christian physician to write for this book. Please contact me at the following address:

CLAUDE A. FRAZIER, M.D.
4-C Doctor's Park
Asheville, NC 28801.

new members

The JOURNAL takes this opportunity to welcome these new members of the Tennessee Medical Association.

BLOUNT COUNTY MEDICAL SOCIETY

John A. Bollinger, Jr., M.D., Maryville

BUFFALO RIVER VALLEY MEDICAL SOCIETY

Veena Anand, M.D., Hohenwald
Virender Anand, M.D., Hohenwald

CONSOLIDATED MEDICAL ASSEMBLY OF WEST TENNESSEE

Raymond W. Rhear, M.D., Bolivar

NASHVILLE ACADEMY OF MEDICINE-DAVIDSON COUNTY MEDICAL SOCIETY

Ruth C. Hagstrom, M.D., Nashville
John A. Worrell, M.D., Nashville

FRANKLIN COUNTY MEDICAL SOCIETY

Rodolfe Villar, M.D., Winchester

MACON COUNTY MEDICAL SOCIETY

G. L. Holmes, III, M.D., LaFayette

MAURY COUNTY MEDICAL SOCIETY

George A. Fiedler, Jr., M.D., Columbia

James B. Kelley, M.D., Columbia

MONTGOMERY COUNTY MEDICAL SOCIETY

Thomas S. Dake, M.D., Erin

Douglas W. Ligon, M.D., Erin

PUTNAM COUNTY MEDICAL SOCIETY

John D. Crabtree, M.D., Cookeville

Charles E. Jordan, M.D., Cookeville

RUTHERFORD COUNTY MEDICAL SOCIETY

Kenneth Dale Macknet, M.D., Murfreesboro

SULLIVAN-JOHNSON COUNTY MEDICAL SOCIETY

Herbert H. Bockian, M.D., Bristol

Richard S. Buddington, M.D., Bristol

Ronald D. Caldwell, M.D., Bristol

Phil H. Morrison, M.D., Bristol

Joseph F. Smiddy, M.D., Kingsport

Robert L. Vann, M.D., Bristol

programs and news of medical societies

Knoxville Academy of Medicine

The Academy met on March 12th at the KAM Building.

The Scientific program consisted of:

Surgery—a discussion on "Recent Advances in the Diagnosis and Treatment of Surgical Jaundice," that consisted of a panel discussion including Drs. Bruce McCampbell, William Laing, Abner Glover, James Guyton, and Lynn Blake.

Family Practice—Dr. Robert B. Gilbertson spoke on "Current Concepts of Pituitary Adrenal Physiology."

Psychiatry—Mr. Carrol D. Moore, Director of the Disability Division of Vocational Rehabilitation, Dept. of Education, Nashville, spoke on, "Issues of Disability."

Pediatrics—Dr. Donald T. Neblett, Associate Professor, Dept. of Pediatrics, U.T. Memorial Research Center and Hospital spoke on, "Newer Concepts of Pediatric Practice."

Ophthalmology—Gerald Feldman, Ph.D., Director of Fort Sanders Eye Clinic, gave a slide presentation of ocular pathology.

Pathology—Area pathologists met on March 20th at U.T. Hospital and discussed slides on unusual cases.

Five Knoxville physicians appeared on the 16th annual Symposium on Cardiology for Nurses which was sponsored by the East Tennessee Heart Association. Those appearing were: Drs. John R. Nelson, H. A. Blake, Dwight R. Wade Jr., James H. Waters Jr., and Alfred D. Beasley.

The Society has been active in a television program over WATE entitled "Today in Tennessee" in which academy members appeared to discuss topics of interest to the public. Physicians who have participated in this

program include: Drs. Ed Buonocore, Frank London, Joseph Harb, Albert Biggs, I. R. Collman, Richard Erickson, Irvin R. King, Bruce Avery, Ron Perry, Stephen Krauss, John Burkhart, Richard Whittaker, Charles Smeltzer, Robert Lash, Thomas Lester, A. L. Jenkins, Leon Bogartz.

This program comes under the purview of the Public Service Committee which is currently looking into possibilities for other programs.

Marshall County Medical Society

The Society held a Breakfast meeting on March 20th in the Doctors' Lounge of Lewisburg Community Hospital.

The meeting consisted of a one hour scientific program on hypertension which was narrated by Hugh Downs on Channel 5, and sponsored by the Merck Sharp & Dohme Pharmaceutical Co.

The society's committee on by-laws recently held a meeting and is preparing a report which will be forthcoming on the constitution portion of the by-laws.

Nashville Academy of Medicine and Davidson County Medical Society

The Board of Directors met on March 19th at the TMA Headquarters Building and took the following actions: Completed action recommended by the Long Range Planning and Development Committee; adopted an Opinion Survey questionnaire for dissemination to the membership; and approved a revised 1974 Academy operating budget.

The Board previously approved the formation of an Academy Speakers Bureau which will be offered to the general public as a mechanism for obtaining physician presentation on scientific and socio-politico-economic subjects.

national news

THIS MONTH IN WASHINGTON (From Washington Office, AMA)

The American Medical Association is playing a guiding role in an attempt to establish an American blood commission that would assure a national, all-volunteer supply of blood for transfusions and medical emergencies by December 31, 1975.

The plan was made public by Richard E. Palmer, M.D., now chairman of the AMA board of trustees, and spokesman for the major groups involved in collecting, distributing and using blood at a press conference in the AMA-Washington office.

Other major sponsors of the proposed American Blood Commission include the American National Red Cross, the American Association

of Blood Banks, and the Council of Community Blood Centers.

The proposed plan is for a volunteer program controlled at the local level, with medical societies playing a major role. Some 150 national groups with an interest in a safe blood supply would be members of a commission that would oversee each regional program. The regional programs in turn would guide the activities of blood banks and transfusion facilities in their own area.

Last fall the Administration warned that if the private sector could not reach agreement on a national program, a federally-mandated program would be sought from the Congress. The AMA stepped in and mediated the sharply different approaches advocated by the major blood groups.

The major difference had pitted a for-profit against non-profit blood supply. In the non-profit field, the American Association of Blood Banks (AABB) and the American National Red Cross have vied for the leadership role. The non-profit blood banks—largely hospital units—chiefly have favored a non-replacement fee for blood as the most dramatic way of attracting donors, whereas the Red Cross traditionally has relied on strictly volunteer blood.

Under the proposed plan, the for-profits would be out in the cold. The hope is that a non-replacement fee system will not be needed, though it would be permitted.

The AMA-proposed plan has been published in the *Federal Register* in order to give interested groups time to comment. At a later date HEW will sponsor a conference to consider comments and decide a course of action.

Commenting on the proposal, Dr. Palmer told the news conference it “builds on the strengths of the pluralistic system.”

“These partners in the American Blood Commission can communicate the medical necessity of a dependable blood supply to the general public from which volunteer donors must come,” he said. “The systematic coordinated recruitment of volunteer donors called for by this plan depends on a receptive public attitude.

“By the end of 1975 every blood bank associated with one of the three major blood banking organizations expects to be drawing 100 per cent of their blood supply from volunteer donors,” Dr. Palmer said.

* * *

Congress has dealt a mortal blow to the Administration's plan to continue wage-price controls

on physicians, hospitals and nursing homes after April 30.

The Senate Banking Committee voted 11 to 4 against a compromise plan that would give the Administration standby authority to keep controls on some industries after the April 30 cut-off when the controls program expires. The Committee then unanimously voted to kill the Administration program to keep the lids on health while freeing the rest of the economy.

House Banking Committee Chairman Wright Patman, (D-Texas), previously had predicted his panel would not move to continue controls.

Barring an unexpected shift in Congressional sentiment, the control program is dead. Health providers, led by the AMA, waged a determined assault on the Administration's program to extend controls in health, promising legal action, and urging lawmakers to drop the entire controls apparatus.

Although Cost of Living Council Director John Dunlop refused to concede defeat, talking bravely of “other options . . . being explored through legislative channels,” most lawmakers agreed that the Banking Committee had sounded the death knell to the Administration's unusually insistent drive to control the health segment of the economy.

Sen. John Tower, (R-Texas), a member of the Banking Committee, said most committee Senators believed that it is “time to let the marketplace be allowed to work.”

* * *

Despite a strong labor-backed move to the contrary, the House easily approved legislation allowing self-employed people such as lawyers and physicians to deduct from federal income taxes up to \$7,500 a year provided it is placed in a qualified pension plan.

The Senate had already approved the provision—part of an overall pension reform bill—making chances of final Congressional enactment and signing into law almost certain.

The current Keogh program limitation on tax deferrals for retirement is \$2,500 not to exceed ten per cent of income. The new provision allows \$7,500 not to exceed fifteen per cent of income.

Spokesmen for the provision, including the AMA, urged lawmakers to approve on grounds the cost of living has increased dramatically since the Keogh Law was last liberalized.

The legislation for the first time imposes certain limitations on corporate retirement programs including those for so-called professional service

corporations. Tax deferrals will not be allowed on savings that would exceed a pension that brings in more than 75 per cent of highest earnings over a three-year period or \$75,000 a year, subject to cost-of-living allowances in the future. A "grandfather-clause" exempts people eligible for more than \$75,000 based on current compensation and additional period of employment.

* * *

A total of 203 areas have been designated for Professional Standards Review Organizations (PSRO's) by DHEW, 21 more areas than tentatively proposed last December. Major change was allowing two larger states—Georgia and Washington—to operate as single PSRO areas.

The final area designations—published in the *Federal Register*—were handed down after a month-long review of hundreds of comments from physicians groups.

"We have now reached an important milestone in implementing the PSRO program," commented HEW Secretary Caspar Weinberger. "Local physician groups can now take the lead role in establishing PSRO's for the areas we have designated."

The most significant change in the final regulation was naming Georgia and Washington as single PSRO areas. Both states have more than 5,000 physicians, and had been divided into three PSRO sections each. In the earlier proposed regulations, HEW had indicated it would hew to the 2,500-3,000 physician limit for a PSRO area. Many states and the AMA had urged HEW to permit some states with higher physician populations to serve as single PSRO's.

Other changes included designating as a single area Hawaii, American Samoa, Guam, and the Trust Territories. These Pacific areas had been proposed for two PSRO's.

Increases or decreases in the number of PSRO areas within states accounted for the remainder of the changes. Texas was increased from 8 to 9 areas; Michigan from 8 to 10; Florida from 8 to 12; and California from 21 to 28; and Wisconsin decreased from 4 to 2.

In addition, Illinois from 7 to 8; Indiana from 5 to 7; Maryland from 5 to 7; New York from 14 to 17; North Carolina from 4 to 8; and Ohio, 9 to 12.

All told, 31 states and territories will serve as single PSRO's; 22 as multiple PSRO's.

HEW invited applications for contracts from qualified physician organizations to plan PSRO's, to begin operation of PSRO's on a conditional

basis, or to establish statewide organizations to provide support services to local PSRO's.

"We believe that PSRO's which are to be planned, operated and controlled by private physicians can significantly improve the quality of medical care rendered in institutions to beneficiaries of government health programs," said Weinberger.

"For this reason, we have proposed that PSRO's be expanded to monitor the quality of all services provided under the Comprehensive Health Insurance Plan which President Nixon recently submitted to Congress."

The head of the PSRO program said the new statewide Support Center Plan would give large state medical societies essentially what they sought in their fight for single-state PSRO status.

Henry Simmons, M.D., told AM NEWS that the larger states never intended to do the review and standard setting on a statewide basis. According to Dr. Simmons, those states wished to provide the leadership and support for PSRO in their states. "Now that makes a good deal of sense," the Deputy Assistant Secretary of Health said.

"We see it (the statewide Support Center) as a way in which state organizations can provide very important leadership and very important services centrally and that makes a lot of sense from our standpoint from the standpoint of efficiency," Dr. Simmons said. "We see them as providing a very important role in getting the PSRO program started in their states, using goodwill and leadership in educating the profession . . ."

The Statewide Support Center idea was one of the major new announcements in the final PSRO area designation rules.

Dr. Simmons was asked why Texas and other states societies from large population states were turned down in their bid for single PSRO area designations and why Georgia and Washington were picked.

He said Texas is too big and diverse. "There are too many major areas in that state which just don't relate to one area for medical services—thus (it) cannot be designated as a single-state area."

By contrast, according to Dr. Simmons, in both Georgia and Washington "there is a concentration of specialists and a majority of physicians in one particular area—in Georgia, the Atlanta area; in Washington, the Seattle-Takoma-Bremerton area."

Within hours after Drs. James Sammons and Richard Palmer, representing the AMA board of trustees, pressed a call upon energy czar William Simon with respect to the effect of gasoline shortages effect on physicians and their care of patients, Simon wired a statement to all state governors suggesting that they establish a special rule to assure adequate gas for medical personnel, and other essential public services.

The statement read in part: "State and local governments may want to consider establishing such a procedure where long lines or early gas station closings could limit the mobility of doctors, nurses, and other medical personnel in providing medical services. Special accommodations also might be considered for those who provide other vital public services.

"I urge your consideration of need for special arrangement to assure gas to all those who perform these essential public services, when it is necessary to their work."

medical news in tennessee

Upper Cumberland Medical Society Meeting Set for June 19-20

The 80th Annual Meeting of the Upper Cumberland Medical Society will be held at the Donoho Hotel in Red Boiling Springs, June 19-20, 1974.

This society, the oldest continuously meeting Medical Society in Tennessee, will again present an outstanding program of scientific presentations featuring, among other things, a symposium on Recent Advances in the Treatment of Hypertension. The program begins at 9:00 a.m., on Wednesday, June 19, 1974 and runs throughout the day and Thursday until noon. It has been customary to have a "President's Party" on Wednesday evening to which members are invited.

Many members bring wives and children as this is a very informal and relaxed atmosphere in which even small children find themselves very much at home. The scientific program will be of interest to specialists and generalists alike and attendance is open to all licensed physicians in the United States.

American College of Physicians Award

F. Tremaine Billings, Jr., M.D. and William J. Darby, M.D. of Nashville were awarded

Masterships in the American College of Physicians, the College's highest membership honor, at its annual convocation ceremony on April 1st at The New York Hilton Hotel. The convocation was the kickoff of that for the 55th Annual Session of the 25,500 member American College of Physicians.

personal news

DR. JEROME H. ABRAMSON, Chattanooga, Chief of Pathology and Nuclear Medicine at Erlanger Hospital recently spoke to the Chattanooga chapter of the American Nuclear Society on "The Use of Radioactive Materials in Clinical Medicine."

DR. JOSEPH H. ALLEN and DR. GADSON J. TARLETON, both of Nashville, have been named Fellows of the American College of Radiology. Also, named was DR. MARION E. SPURGEON of Clarksville.

DR. WILLIAM B. BERRY and DR. CHARLES D. McDONALD, both of Chattanooga, have been elected Fellows in the American College of Cardiology.

DR. WILLIAM C. GODSEY, Memphis, has been named superintendent of Central State Psychiatric Hospital at Nashville succeeding Dr. William H. Tragle.

DR. JOHN REYNOLDS, Chattanooga, has been elected to the executive committee of the Southeastern Society of Plastic and Reconstructive Surgeons.

DR. LEE WILLIAMS, Knoxville, was honored by Knoxville Round Table of the National Conference of Christians and Jews at a recent banquet.

announcements

CALENDAR OF MEETINGS

STATE

- | | |
|------------|--|
| June 18-21 | Emergency Care and Transportation of the Sick and Injured, U.T. College of Medicine, Memphis |
| June 19-20 | Upper Cumberland Medical Society, 80th Annual Meeting, Donoho Hotel, Red Boiling Springs |

NATIONAL

- | | |
|------------|---|
| May 16-18 | American Cancer Society's National Conference on Childhood Cancer, Fairmont Hotel, Dallas, Texas |
| May 20-23 | Institute of Clinical Toxicology, Marriott Motor Hotel, Houston, Texas |
| May 30-31 | Fourth Annual Emergency Health Care Seminar, Ramada Inn. Bluegrass Convention Center, Louisville, Kentucky. |
| June 23-27 | American Medical Association, Palmer House, Chicago, Illinois |

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Rondomycin[®]

(methacycline HCl)

CONTRAINDICATIONS: Hypersensitivity to any of the tetracyclines.

WARNINGS: Tetracycline usage during tooth development (last half of pregnancy to eight years) may cause permanent tooth discoloration (yellow-gray-brown), which is more common during long-term use but has occurred after repeated short-term courses. Enamel hypoplasia has also been reported. **Tetracyclines should not be used in this age group unless other drugs are not likely to be effective or are contraindicated.**

Usage in pregnancy. (See above **WARNINGS** about use during tooth development.) Animal studies indicate that tetracyclines cross the placenta and can be toxic to the developing fetus (often related to retardation of skeletal development). Embryotoxicity has also been noted in animals treated early in pregnancy.

Usage in newborns, infants, and children. (See above **WARNINGS** about use during tooth development.)

All tetracyclines form a stable calcium complex in any bone-forming tissue. A decrease in fibula growth rate observed in prematures given oral tetracycline 25 mg/kg every 6 hours was reversible when drug was discontinued.

Tetracyclines are present in milk of lactating women taking tetracyclines.

To avoid excess systemic accumulation and liver toxicity in patients with impaired renal function, reduce usual total dosage and, if therapy is prolonged, consider serum level determinations of drug. The anti-anabolic action of tetracyclines may increase BUN. While not a problem in normal renal function, in patients with significantly impaired function, higher tetracycline serum levels may lead to azotemia, hyperphosphatemia, and acidosis.

Photosensitivity manifested by exaggerated sunburn reaction has occurred with tetracyclines. Patients apt to be exposed to direct sunlight or ultraviolet light should be so advised, and treatment should be discontinued at first evidence of skin erythema.

PRECAUTIONS: If superinfection occurs due to overgrowth of nonsusceptible organisms, including fungi, discontinue antibiotic and start appropriate therapy.

In venereal disease, when coexistent syphilis is suspected, perform darkfield examination before therapy, and serologically test for syphilis monthly for at least four months.

Tetracyclines have been shown to depress plasma prothrombin activity; patients on anticoagulant therapy may require downward adjustment of their anticoagulant dosage.

In long-term therapy, perform periodic organ system evaluations (including blood, renal, hepatic).

Treat all Group A beta-hemolytic streptococcal infections for at least 10 days.

Since bacteriostatic drugs may interfere with the bactericidal action of penicillin, avoid giving tetracycline with penicillin.

ADVERSE REACTIONS: **Gastrointestinal** (oral and parenteral forms): anorexia, nausea, vomiting, diarrhea, glossitis, dysphagia, enterocolitis, inflammatory lesions (with monilial overgrowth) in the anogenital region.

Skin: maculopapular and erythematous rashes; exfoliative dermatitis (uncommon). Photosensitivity is discussed above (See **WARNINGS**).

Renal toxicity: rise in BUN, apparently dose related (See **WARNINGS**).

Hypersensitivity: urticaria, angioneurotic edema, anaphylaxis, anaphylactoid purpura, pericarditis, exacerbation of systemic lupus erythematosus.

Bulging fontanels, reported in young infants after full therapeutic dosage, have disappeared rapidly when drug was discontinued.

Blood: hemolytic anemia, thrombocytopenia, neutropenia, eosinophilia.

Over prolonged periods, tetracyclines have been reported to produce brown-black microscopic discoloration of thyroid glands; no abnormalities of thyroid function studies are known to occur.

USUAL DOSAGE: Adults—600 mg daily, divided into two or four equally spaced doses. More severe infections: an initial dose of 300 mg followed by 150 mg every six hours or 300 mg every 12 hours. **Gonorrhea:** In uncomplicated gonorrhea, when penicillin is contraindicated, 'Rondomycin' (methacycline HCl) may be used for treating both males and females in the following clinical dosage schedule: 900 mg initially, followed by 300 mg q.i.d. for a total of 5.4 grams.

For treatment of syphilis, when penicillin is contraindicated, a total of 18 to 24 grams of 'Rondomycin' (methacycline HCl) in equally divided doses over a period of 10-15 days should be given. Close follow-up, including laboratory tests, is recommended.

Eaton Agent pneumonia: 900 mg daily for six days.

Children—3 to 6 mg/lb/day divided into two to four equally spaced doses.

Therapy should be continued for at least 24-48 hours after symptoms and fever have subsided.

Concomitant therapy: Antacids containing aluminum, calcium or magnesium impair absorption and are contraindicated. Food and some dairy products also interfere. Give drug one hour before or two hours after meals. Pediatric oral dosage forms should not be given with milk formulas and should be given at least one hour prior to feeding.

In patients with renal impairment (see **WARNINGS**), total dosage should be decreased by reducing recommended individual doses or by extending time intervals between doses.

In streptococcal infections, a therapeutic dose should be given for at least 10 days. **SUPPLIED:** 'Rondomycin' (methacycline HCl): 150 mg and 300 mg capsules; syrup containing 75 mg/5 cc methacycline HCl.

Before prescribing, consult package circular or latest PDR information.

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Medical College of Georgia CME Courses

Date	Title, Location
June 13-15	Internal Medicine, Buccaneer Motor Lodge, Jekyll Island, Ga.

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Indiana University
Bloomington, IN 47401

The University of Tennessee College of Medicine Schedule of Continuing Education Courses, 1974

May 15-18	Clinical EKG, Paris, Tenn.
May 20-24	Intensive Review of the Science of Anesthesiology, Memphis

Vanderbilt University CME Course Listings

13th Annual Seminar in Psychiatry

Central State Psychiatric Hospital; Tenn. Dept. of Mental Health; Meharry Medical College ... May

For further information contact:

Paul E. Slaton, M.D., Director

or

Marilyn Short, Administrative Associate

Vanderbilt Continuing Education

305 Medical Arts Building

Nashville, Tennessee 37212 Tel. 615-322-2716

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Dermatology	Robert N. Buchanan, Jr., M.D.
Endocrinology & Diabetes	Grant W. Liddle, M.D.
Gastroenterology	Steven Schenker, M.D.
Hematology	Robert C. Hartmann, M.D.
Infectious Diseases	Zell A. McGee, M.D.
Renal Diseases	H. Earl Ginn, M.D.
Clinical Pharmacology	John A. Oates, M.D.
Neurology	Gerald M. Fenichel, M.D.
Obstetrics & Gynecology	Paul W. Griffin, M.D.
Pathology	Virgil S. LeQuire, M.D.
Pediatrics	David T. Karzon, M.D.
Psychiatry	Marc H. Hollender, M.D.
Radiology	John R. Amberg, M.D.
Surgery	
General	H. William Scott, Jr., M.D.
Neurological	William F. Meacham, M.D.
Ophthalmology	James H. Elliott, M.D.
Oral	H. David Hall, D.M.D.
Pediatric	James A. O'Neill, M.D.
Plastic	John B. Lynch, M.D.
Thoracic & Cardiac	Harvey W. Bender, M.D.
Urology	Robert K. Rhamy, M.D.
Cancer Chemotherapy	Vernon H. Reynolds, M.D.

ELIGIBILITY: All licensed physicians are eligible.

ADMINISTRATIVE FEE: \$200.00 per week.

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APPLICATION: For further information and application, contact:

Paul E. Slaton, M.D., Director, Continuing Education
305 Medical Arts Building

Nashville, TN 37212

Tel. 615-322-2716

Symposium on the Recent Advances In the Practical Management Of Allergic Diseases

A 3-day symposium will be held for the general medical community at a resort hotel this summer or early fall, with outstanding specialists in the field of allergy as featured speakers. A golf and tennis tournament will be held in conjunction with this symposium. Please contact:

Claude A. Frazier, M.D.
4-C Doctors' Park
Asheville, NC 28801

Audio-Cassette Directory Available

Many doctors rely upon audio-cassette tape-recordings for part of their continuing medical education, usually by subscribing to Audio-Digest or Accel or one of the other well-known educational services. There are, however, many other medical programs that are available on audio-cassettes, often without charge.

To aid the physician in locating these little-known but often useful programs, Cassette Information Services of Los Angeles has published its 1974 Directory of Spoken-Voice Audio-Cassettes. Although the services for the health sciences—medicine, nursing, pharmacy,

dentistry, hospital administration—comprise a large portion of this 108-page directory, it lists programs in all fields and interests. These range from courses for accountants and management executives to inspirational and entertainment tapes for shut-ins. There is also a large selection of "how-to-do-it" programs, including many on such topics of interest to the physician as hypoglycemia, acupuncture and the Lamaze method of childbirth preparation.

The CIS Directory is not a catalog, but rather a compendium of program titles and subjects that can be found on audio-cassettes, a brief description of each (including price), and from whom the tape or more information may be obtained. The directory itself is available for \$5.00 from Cassette Information Services, Box 17727, Los Angeles, CA 90057.

* * *

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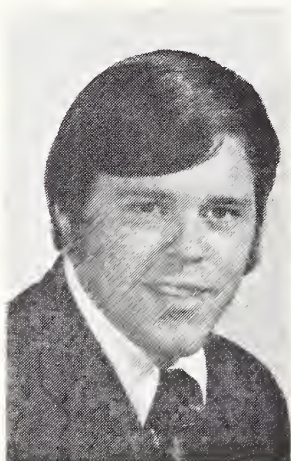
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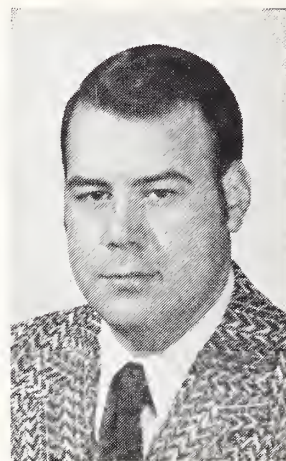
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For further information on any of the above, con-
tact:

Ronald D. Hamilton, M.D.
Director, Continuing Education
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Lexington, KY 40506

The University of Michigan
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The University of Michigan School of Public Health is offering a graduate program of study in Mental Retardation and Related Disabilities.

The postgraduate program is a 21 month course leading to an MPH degree and qualification in the field of Mental Retardation. Fees are regular school tuition in the School of Public Health; and terms begin in September and January.

For further information contact:

Arthur W. Fleming, M.D.
The University of Michigan
School of Public Health
Ann Arbor, MI 48104

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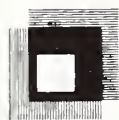
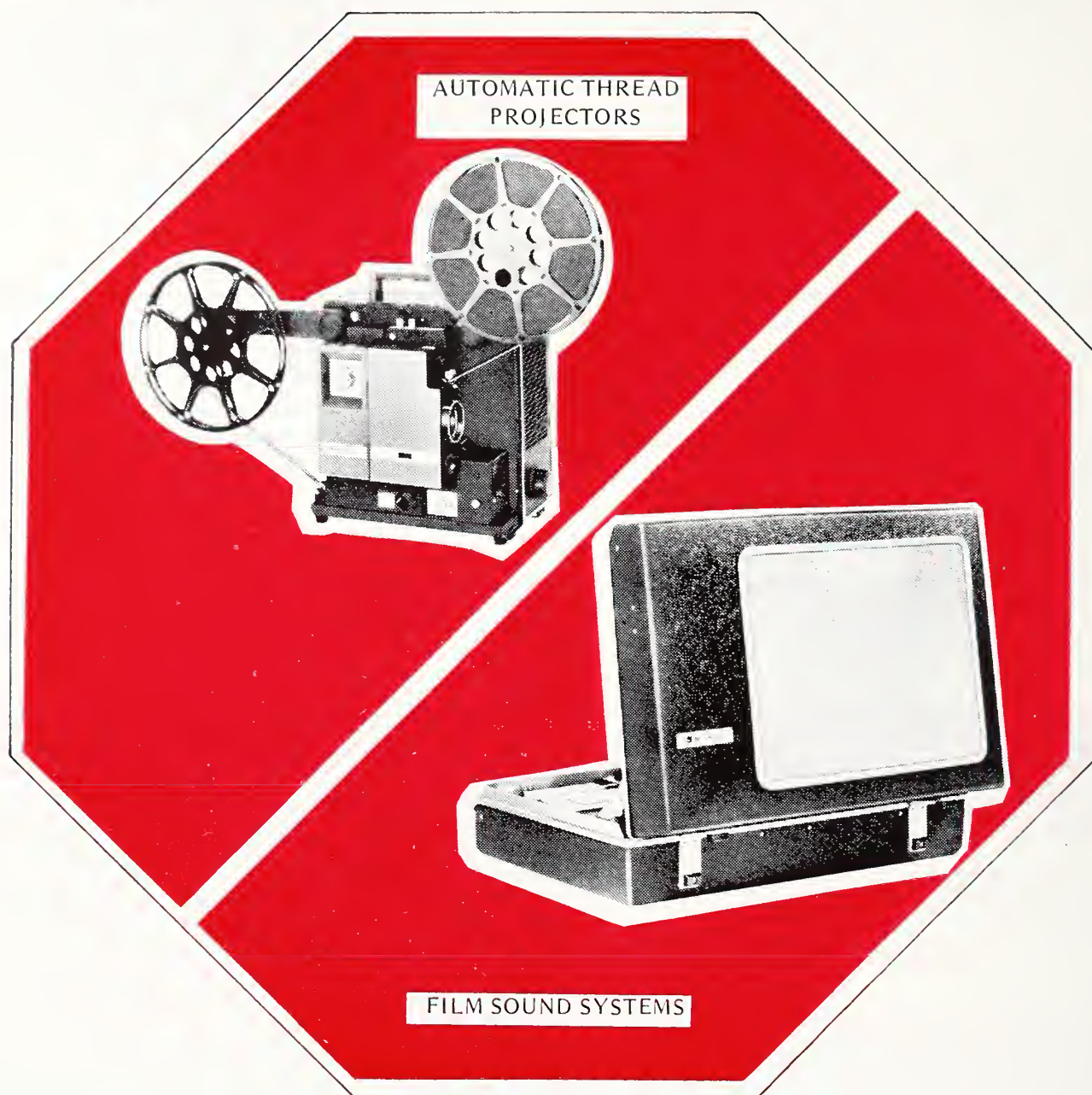
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20th Annual OB-GYN Seminar

The 20th Annual OB-GYN Seminar will be held again this year in Asheville, North Carolina at the Grove Park Inn, July 21 through July 26.

A wide variety of subjects in obstetrics and gynecology will be presented and program participation will include the medical schools of North Carolina, Duke, Bowman Gray and the Medical College of Virginia, in addition to outstanding speakers from other areas.

For registration information, please contact the Secretary, Dr. George T. Schneider, 1514 Jefferson Highway, New Orleans, Louisiana (Jefferson) 70121.

Diabetes-Endocrinology Center At Vanderbilt Offers Tests

As a service to Middle Tennessee's practicing physicians and research scientists, Vanderbilt's Diabetes-Endocrinology Center is now able to provide certain diabetes-related diagnostic assays and tests through its newly established Diabetes Service and Research Support Laboratory, Room A-5203, in the Vanderbilt Medical Center.

Although this laboratory is "sponsored" by the Center, it is not supported by the Center's federal research funds and must, therefore, make modest charges for its services both to the Center's investigators and to physicians and researchers who are not directly affiliated with the Center.

For additional information, please call (615) 322-2197 or, at night, (615) 356-5397.

Aspen Mushroom Conference

The Aspen Mushroom Conference is designed for physicians, scientists and amateur mycologists interested in the identification and toxic properties of mushrooms. The Conference is sponsored by the Beth Israel Hospital, Denver and the Colorado Mountain College, Glenwood Springs, Colorado and will be held at the Inns of Court, Snowmass-at-Aspen, Colorado, August 26-30, 1974.

An outstanding group of Colorado and visiting mycologists and physicians will serve as a faculty for the Conference. Didactic sessions and refresher courses on mushroom identification will be held in the early mornings and late afternoons at the novice and advanced student levels. Group discussions on advances in the diagnosis and treatment of mushroom poisoning will be offered to physicians and others interested in the subject. Generally, in the late summer, the Snowmass mountains are richly productive of a wide variety of mushrooms. Experienced leaders will conduct daily

forays into the surrounding mountains to collect edible and poisonous species and study their field characteristics.

For further information contact:

Aspen Mushroom Conference
Beth Israel Hospital
W. 17th Ave. & Lowell Blvd.
Denver, Colorado 80204
1-303-825-2190

Thirteenth Annual Seminar in Psychiatry Symposium on Human Sexuality

Central State Psychiatric Hospital, Nashville, Tennessee
May 29, 1:00 p.m.-4:45 p.m., and May 30, 9:00 a.m.-5:00 p.m.

Planning Committee: Frank H. Luton, M.D., Program Coordinator; Marc H. Hollender, M.D., James Greer, M.D., Paul E. Slaton, M.D.

Presented by: Tennessee Department of Mental Health, Central State Hospital; Vanderbilt University School of Medicine; Meharry Medical College; Tennessee Academy of Family Physicians.

Contact: Vanderbilt Continuing Education, 305 Medical Arts Bldg., Nashville, Tenn. 37212; 615-322-2716.

Annual Otolaryngologic Assembly

The Annual Otolaryngologic Assembly of 1974 will be held October 26 through November 1, 1974, in the Eye and Ear Infirmary of the University of Illinois Hospital. The Department of Otolaryngology of the Abraham Lincoln School of Medicine, University of Illinois at the Medical Center, offers a condensed basic and clinical program for practicing otolaryngologists under the direction of Emanuel M. Skolnik, M.D., with Burton J. Soboroff, M.D., as co-chairman. This program is designed to bring to specialists current information in medical and surgical otorhinolaryngology.

Interested otolaryngologists should direct their inquiries to the mailing address: OTOLARYNGOLOGY, P.O. Box 6998, Chicago, IL 60680.

Workshop on the Surgery Of Chronic Ear Disease

The Department of Otolaryngology of the University of Illinois, Abraham Lincoln School of Medicine, announces a Workshop on the Surgery of Chronic Ear Disease to be held October 2 through 4, 1974.

The workshop will deal with canal preservation in surgery for cholesteatoma. The technic of canal preservation will be taught by closed circuit surgical color television and temporal bone dissection. Seminars will be held to discuss the difficulties and complications of these technics.

Interested registrants may write directly to the Department of Otolaryngology, University of Illinois Hospital Eye and Ear Infirmary, 1855 West Taylor Street, Chicago, Illinois 60612.

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Journal

OF THE
TENNESSEE MEDICAL
ASSOCIATION

JUNE, 1974

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of The Institute for Scientific Information

INSTRUCTIONS TO CONTRIBUTORS

Manuscripts submitted for consideration for publication in the JOURNAL OF THE TENNESSEE MEDICAL ASSOCIATION should be addressed to the Editor, John B. Thomison, M.D., P.O. Box 70, Nashville, Tennessee 37202.

Manuscripts must be typewritten on one side of letterweight paper. Either double or triple spacing and wide margins must be provided to facilitate editing which will be legible for the printer. The pages should be numbered and clipped or stapled together, but they should not be placed in a binder.

Bibliographic references should not exceed twenty in number documenting key publications. They should appear at the end of the paper. The bibliographic references must conform to the style used in the American Medical Association publications, as, —Alais, FG: What is Known About it, J. Tennessee M. A., 35:132, 1950.

Illustrations should be numbered and identified with the author's name. The editor will determine the number, if any, of illustrations to be used with the Journal assuming the cost of engravings and cuts up to \$25. Engraving cost for illustrations in excess of \$25 will be billed to the author. They will not be returned unless specifically requested.

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Abstract of the Proceedings of the House of Delegates Of the Tennessee Medical Association Gatlinburg, Tennessee — April 10-13, 1974

The House of Delegates of the Tennessee Medical Association met in Gatlinburg, Tennessee with headquarters at the Auditorium, April 10-13, 1974 in conjunction with the 139th Annual Meeting of the Association, with Dr. Robert H. Haralson, Jr., Speaker of the House of Delegates and Dr. William H. Edwards, Vice Speaker, presiding.

The invocation was rendered by Dr. George H. Finer, Knoxville:

DR. GEORGE H. FINER: "This week especially significant to both Christianity and Judaism is peculiarly suited to a meeting of the Tennessee Medical Association, an organization of those devoted to helping their fellows of all ages, all races and all creeds.

"I have always felt it presumptuous on our part to call on God to sponsor a meeting. Rather, it is for us to be worthy of the trust imposed on us as representatives of our peers. In the words of Martin Booverett, we can achieve an I-Thou relationship with our God when we achieve that relationship with our fellow men. This meeting is not a convention in the ordinary sense. This is not a meeting convened only to advance our business. This is a meeting with a primary purpose of helping us to help others.

"These are extraordinary times and we're called upon for extraordinary measures. Not only must we decide what is our best judgment about methods of practice, but of equal importance is the advancement of our knowledge so that we may not only deliver care to all in need but deliver care of the highest order and not because of coercion but because of our intense desire to see the best accomplished.

"May this Assembly go from strength to strength to finish this task. Amen."

SEATING OF DELEGATES

The Chairman of the TMA Judicial Council presented a challenge to Delegates from several county societies, since those societies failed to file their annual county reports to the Judicial Council. There were nine counties who failed to submit reports. The Tennessee Medical Association By-Laws, Chapter IV, Section 2, states that, "No delegate from any chartered component medical society shall be entitled to be seated in the House of Delegates unless the component medical society which he represents has complied with the requirements of the Association by submitting the report to the Councilor of the District in which the component society is located." This rule has not been strenuously enforced and the Speaker ruled that the Delegates from these nine component medical societies be seated with this reprimand. The Speaker of the House stated that, "It will be the policy of the House of Delegates in following years that if a component society has not reported to the Judicial Council that their Delegates will not be seated."

REPORT OF THE COMMITTEE ON CREDENTIALS

Dr. Robert G. Hewgley, Athens, Chairman of the Committee on Credentials, reported that eighty-three registered duly elected members of the House of Delegates were present and represents a quorum. The Speaker declared the House was in session.

1973 MINUTES APPROVED

The Speaker announced that an abstract of the Minutes of the last regular session of the House of Delegates were reproduced in the June, 1973 issue of the JOURNAL of TMA. It was moved and

seconded that the Minutes of the 1973 regular session of the House of Delegates be approved as published in the June, 1973 issue of the JOURNAL. **The motion was adopted.**

REFERENCE COMMITTEES

The Speaker announced the personnel of Reference Committees to consider reports, resolutions, amendments, and all matters requiring action by the House of Delegates.

REFERENCE COMMITTEE ON CREDENTIALS

Robert G. Hewgley, M.D., Athens, Chairman
Shannon Curtis, M.D., Dickson
Robert L. Harrington, M.D., Dyersburg

REFERENCE COMMITTEE ON AMENDMENTS TO THE CONSTITUTION AND BY-LAWS

John H. Burkhart, M.D., Knoxville, Chairman
R. L. DeSaussure, M.D., Memphis
David H. Turner, M.D., Chattanooga

REFERENCE COMMITTEE A

Joe L. Willoughby, M.D., Franklin, Chairman
Hamel B. Eason, M.D., Memphis
Felix G. Line, M.D., Knoxville

REFERENCE COMMITTEE B

Robert M. Roy, M.D., Nashville, Chairman
Mark P. Fecher, M.D., Knoxville
S. Lane Bicknell, M.D., Jackson

REFERENCE COMMITTEE C

Charles H. Alper, M.D., Chattanooga, Chairman
Raymond F. Mayer, M.D., Memphis
Phillip P. Porch, Jr., M.D., Nashville

REFERENCE COMMITTEE D

W. David Dunavant, M.D., Memphis, Chairman
John K. Wright, M.D., Nashville
B. Y. Cowan, M.D., Bristol

REFERENCE COMMITTEE ON OUTSTANDING PHYSICIAN OF THE YEAR AWARD

Tom E. Nesbitt, M.D., Nashville, Chairman
John H. Burkhart, M.D., Knoxville
William T. Satterfield, Sr., M.D., Memphis

NOMINATING COMMITTEE

As required in the By-Laws, the Board of Trustees in its January meeting, appointed a Nominating Committee with representatives from each of the three grand divisions of the state. The

Speaker announced the personnel of the Committee.

EAST TENNESSEE:

David P. McCallie, M.D., Chattanooga
John H. Burkhart, M.D., Knoxville
Gilbert A. Rannick, M.D., Johnson City

MIDDLE TENNESSEE:

George W. Holcomb, Jr., M.D., Nashville
C. R. Sanders, M.D., Gallatin
Carl E. Adams, M.D., Murfreesboro

WEST TENNESSEE:

C. D. Hawkes, M.D., Memphis
Oscar M. McCallum, M.D., Henderson
Arden J. Butler, Jr., M.D., Ripley

<p>ELECTION OF OFFICERS AND COUNCILORS APRIL 13, 1974</p>

The report of the Nominating Committee was presented in the second session of the House of Delegates on Saturday, April 13. Nominees submitted by the Committee were voted upon individually and in each instance, the Speaker called for additional nominations from the floor. Those elected were:

President-Elect—J. Kelley Avery, M.D., Union City

Speaker—House of Delegates—William H. Edwards, M.D., Nashville

Vice Speaker—House of Delegates—Allen S. Edmondson, M.D., Memphis

Vice President (East Tennessee)—Carroll H. Long, M.D., Johnson City

Vice President (Middle Tennessee)—Kenneth J. Phelps, M.D., Lewisburg

Vice President (West Tennessee)—Hugh Francis, Jr., M.D., Memphis

AMA Delegate (East Tennessee)—John H. Burkhart, M.D., Knoxville (January 1, 1975-December 31, 1976)

AMA Delegate (State-At-Large)—Julian K. Welch, M.D., Brownsville (January 1, 1975-December 31, 1976)

AMA Alternate Delegate (East Tennessee)—David H. Turner, M.D., Chattanooga (January 1, 1975-December 31, 1976)

AMA Alternate Delegate (State-At-Large)—Robert H. Haralson, Jr., M.D., Maryville

(January 1, 1974-December 31, 1976) (Filling unexpired term of Julian C. Lentz, M.D.)

TRUSTEES

West Tennessee:

Eugene W. Gadberry, M.D., Memphis (1975)
(Dr. Gadberry is filling the unexpected term of Dr. Avery.)

Oscar M. McCallum, M.D., Henderson (1977)

Middle Tennessee:

James W. Hays, M.D., Nashville (1977)

East Tennessee:

Robert L. Allen, M.D., Cleveland (1977)
Mark P. Fecher, M.D., Knoxville (1977)

COUNCILORS:

First District—James H. Boles, M.D., Kingsport (1976)

Third District—David H. Turner, M.D., Chattanooga (1976)

Fifth District—William D. Jones, M.D., Fayetteville (1976)

Seventh District—Parker D. Elrod, M.D., Centerville (1976)

Ninth District—Robert E. Clendenin, Jr., M.D., Union City (1976)

Nominees for Public Health Council: (Three from West Tennessee, one of which will be subsequently appointed by the Governor.)

Moore Moore, Jr., M.D., Memphis

S. Lane Bicknell, M.D., Jackson

Robert L. Harrington, M.D., Dyersburg

(Three from East Tennessee, one of which will be subsequently appointed by the Governor.)

Nat E. Hyder, M.D., Erwin

James R. Royal, M.D., Chattanooga

John H. Saffold, M.D., Knoxville

Nominees for Advisory Board for Tuberculosis Control: (Three from Middle Tennessee, one of which will be subsequently appointed by the Governor.)

Cullen R. Merritt, M.D., Nashville

Thomas B. Haltom, M.D., Nashville

Robert A. Goodwin, M.D., Nashville

THE ABOVE NOMINEES WERE NOMINATED BY THE HOUSE OF DELEGATES.

AMENDMENTS TO CONSTITUTION AND BY-LAWS

The Speaker called for action on any amendments to the Constitution lying on the Table from the last regular session of the House of Delegates.

There were three amendments lying on the Table from the Constitution and one from the By-Laws. The Reference Committee in 1973 recommended adoption of these amendments, which were not acted upon due to the requirement that they lie on the Table for one year.

AMENDMENTS TO THE CONSTITUTION AND BY-LAWS LYING ON THE TABLE AMENDMENTS TO THE CONSTITUTION CA - NO. 1-73

This amendment was introduced to amend Article IV, Section 6 of the Constitution of the Tennessee Medical Association to add the word "Member" and further amend Article IV to add a new Section 8.

As amended, Constitution Amendment No. 1-73 would read as follows:

Section 6. An Intern or Resident **Member** is any doctor of medicine appointed and serving in an approved Intern or Resident status, serving in an approved hospital in Tennessee, and who is certified as an Intern or Resident Member of his component medical society.

Section 8. Wherever the term **physician** is used in this Constitution or in the By-Laws, the following definition shall apply: A physician is a person, who having been regularly admitted to a medical school duly recognized in the country in which it is located, has successfully completed the prescribed course of studies in medicine, and has acquired the requisite qualifications to be legally licensed to practice medicine.

ACTION: **ADOPTED**

CA-NO. 2-73

This amendment was introduced to amend Article VIII, Section 2 of the Constitution of the Tennessee Medical Association by changing the period to a comma in the first sentence of the last paragraph, and inserting the words "except that this provision shall not apply to a Trustee who by virtue of election or appointment has served no more than two years of another's unexpired term.", and amend Section 7 designating the exact time when elected officers assume their office.

As amended, Constitution Amendment No. 2-73 is as follows:

Section 2. The Board of Trustees shall consist of the President of the Association, the Speaker of the House of Delegates, the immediate Past-President, the President-Elect, and members

elected by the House of Delegates as hereinafter provided.

Nine members of the Board of Trustees shall be elected by the House of Delegates, three from each grand division of the State, and no more than two from any one component society.

The elected Trustees shall serve for a period of three years and no Trustee shall be eligible immediately to succeed himself, **except that this provision shall not apply to a Trustee who by virtue of election or appointment has served any portion of another's unexpired term.** The Board of Trustees will organize by the election of a Chairman, and a Secretary-Treasurer from the nine elected as Trustees.

Section 7. All officers of the Association shall be elected at the second regular session of the House of Delegates, and they shall assume office **at the conclusion of this session.**

ACTION: **ADOPTED**

CA-NO. 3-73

This amendment was introduced to amend Article VIII, Section 2 of the Constitution of the Tennessee Medical Association by adding the words "the Vice Speaker of the House of Delegates."

As amended, Constitution Amendment 3-73 is as follows:

Section 2. The Board of Trustees shall consist of the President of the Association, the Speaker of the House of Delegates, **the Vice Speaker of the House of Delegates**, the immediate Past-President, the President-Elect, and members elected by the House of Delegates as hereinafter provided.

Nine members of the Board of Trustees shall be elected by the House of Delegates, three from each grand division of the State, and no more than two from any one component society.

The elected Trustees shall serve for a period of three years and no Trustee shall be eligible immediately to succeed himself. The Board of Trustees will organize by the election of a Chairman, and a Secretary-Treasurer from the nine elected as Trustees.

ACTION: **ADOPTED**

BA-NO. 4-73

This amendment was introduced to amend Chapter IV, Section 4 of the By-Laws of the Tennessee Medical Association by adding the words "and the Vice Speaker."

As amended, By-Laws Amendment 4-73 is as follows:

Section 4. The Speaker of the House of Delegates shall preside over that body and perform the usual duties of such officer. He shall sign the Minutes of its transactions when same have been read and approved by the House. In the event of his absence for any cause, or upon request of the Speaker, the Vice Speaker of the House of Delegates, shall perform those duties. The Speaker and the Vice Speaker shall also be ex-officio members of the Board of Trustees.

ACTION: **ADOPTED**

RESOLUTIONS

The Reference Committees have the option of recommending a resolution for adoption or rejection, for adoption as amended or substituted for referral, or for no action. The resolutions that follow are as amended, and in the form in which the House of Delegates **adopted, referred** or **rejected** them.

RESOLUTION NO. 1-74

Representation of Medical Students
in TMA House of Delegates

By: BOARD OF TRUSTEES

TENNESSEE MEDICAL ASSOCIATION

WHEREAS, It is the opinion of the Board of Trustees of the Tennessee Medical Association and a recommendation of the Liaison Committee to Medical Schools that it would be mutually beneficial to the Association and to the students of medicine in the three medical schools in Tennessee for a method to be provided that would permit and encourage student representatives of the three student bodies to participate in discussions and deliberations of the many important matters considered at the annual meeting of the House of Delegates of the Tennessee Medical Association; and

WHEREAS, The Board of Trustees has received and studied the report of the Liaison Committee concerning its response to Resolution No. 17-73 entitled "Privileges and Rights of Medical Students" and has noted that the Liaison Committee was unanimous on the desirability of students representing the student bodies being present at meetings of the House of Delegates but was divided on the question of voting privileges; and

WHEREAS, It is the attitude of the Board of Trustees that the granting of voting privileges to student representatives not members of the Tennessee Medical Association by virtue of membership via component county medical societies or via direct membership in TMA would constitute a radical departure from the present and traditional practice and would be in direct conflict with the Constitution and By-Laws of TMA, and furthermore, that although such a course could be accomplished through the amendment of various portions of the Constitution and By-Laws, it would require a minimum

of two annual sessions to be effective. Now, therefore be it

RESOLVED, That the House of Delegates of the Tennessee Medical Association invite and encourage the attendance and active participation in its annual meeting of one designated representative of the student body of each of the three medical schools in Tennessee; that this representative be chosen by the majority vote of the student body, the election to be conducted under the auspices of the Student American Medical Association and certified by the Dean of the medical school; that he or she be seated in the House of Delegates as a Student Delegate with all of the rights and privileges of any other Delegate except the right to vote; that an Alternate Student Delegate, who shall substitute for the Student Delegate, if required, be selected in the same manner, and that the expenses of the Student Delegate and the Alternate Student Delegate to and from and during the annual meeting be borne by the Tennessee Medical Association, such expenses to include travel to and from the annual meeting, hotel expenses, and a reasonable per diem which shall be established by the Executive Director of the Tennessee Medical Association.

Reference Committee D—recommended adoption of the resolution.

ACTION: ADOPTED

RESOLUTION NO. 2-74

Peer Review of HMO's

By: BOARD OF TRUSTEES

TENNESSEE MEDICAL ASSOCIATION

WHEREAS, The Congress has passed legislation authorizing \$358 million over the next five years to encourage and subsidize the formation and initial operation of Health Maintenance Organizations; and

WHEREAS, HMO's will undoubtedly be established and operated in Tennessee. Now, therefore be it

RESOLVED, That all HMO medical activities should be subject to the same review and quality controls to which the non-HMO medical practice in the area is subjected.

Reference Committee C—recognized the need of smaller communities in obtaining nurses and other qualified health personnel and endorsed the resolution, but suggested that the resolution should state it supported the establishment of qualified Health Field training programs at the community level.

ACTION: ADOPTED AS AMENDED

RESOLUTION NO. 3-74

Uniform Health Insurance Claim Form

By: KNOXVILLE ACADEMY OF MEDICINE

WHEREAS, The physicians of Tennessee Recognize a responsibility in helping their patients file claims for health insurance; and

WHEREAS, The multitude of currently used forms by insurance carriers, including the Federal agencies, generates confusion, volumes of paperwork with considerable duplication of effort, and veritable chaos in the physician's office; and

WHEREAS, The American Medical Association and its council of advisors have devised a Uniform Health Insurance Claim Form, suitable for use by all carriers, and able to be used in computer oriented systems. Now, therefore be it

RESOLVED, That the Tennessee Medical Association endorse the use of the 1973 AMA Uniform Health Insurance Claim Form to be a universally accepted claim form for use by all carriers on a statewide basis; and be it further

RESOLVED, That the Insurance Commissioner of the State of Tennessee be requested to institute the use of this form throughout the State; and be it further

RESOLVED, That the appropriate Federal administrators be requested and be encouraged by the American Medical Association to institute the use of this form throughout the Federal agencies.

Reference Committee C—recommended the adoption of the resolution with the inclusion of the phrase it would be encouraged by the American Medical Association.

ACTION: ADOPTED AS AMENDED

RESOLUTION NO. 4-74

TMA-TNA Joint Policy Statement

**By: INTERPROFESSIONAL LIAISON COMMITTEE
TENNESSEE MEDICAL ASSOCIATION**

WHEREAS, The Tennessee Medical Association House of Delegates in 1973 instructed the Interprofessional Liaison Committee to up-date definitions of authority and responsibility of the physician-nurse relationship and develop additional joint statements on patient care with the Tennessee Nurses' Association; and

WHEREAS, This committee has subsequently met with the Tennessee Nurses' Association and has worked cooperatively to develop a Joint Policy Statement on the use of professional nurses in an expanded role. Now, therefore be it

RESOLVED, That the attached Joint Statement be adopted as policy of the Tennessee Medical Association.

**TENNESSEE MEDICAL ASSOCIATION
and**

**TENNESSEE NURSES' ASSOCIATION
JOINT STATEMENT**

ON

**EXPANDED ROLE OF THE
PROFESSIONAL NURSE IN HEALTH
CARE DELIVERY**

The Tennessee Medical Association and the Tennessee Nurses' Association recognize that to increase the availability and accessibility of health care, there must be optimal utilization of physicians and professional nurses. Physicians and professional nurses desiring to see health delivery extended and improved must be involved in developing innovative programs with other health professionals to assure the availability of appropriate health care for all citizens. Professional nurses who are capable of training of expanding their

role must be willing to do so and ready to assume responsibility for their acts.

The Tennessee Medical Association and the Tennessee Nurses' Association believe that professional nurses prepared to function in an expanded role can assume greater responsibility in the delivery of health care. It is recognized that professional nurses have independent and interdependent functions as well as the dependent function of administration of medications and treatments. Professional nurses functioning in an expanded role must have written medical protocols, jointly developed by the sponsoring physician(s) and nurse. The written medical protocols will be the guidelines followed by the nurse in the management of the medical aspects of patient care and should indicate the medications the nurse may utilize. The detail of medical protocols will vary in relation to the complexity of the situations covered and the preparation of the professional nurse using them. Professional nurses prepared to function in an expanded role and their sponsoring physician(s) should meet at frequent, regular specified intervals to review the management of patient care. The written medical protocols must be reviewed at least annually and revised as often as the regular review of the management of patient care indicates.

Professional nurses functioning in an expanded role are prepared through master's degree, baccalaureate degree, and/or short-term continuing education nurse training programs. The title distinctions referred to in this statement are generally nurse clinician (master's level) and nurse practitioners (continuing education or baccalaureate level). The TMA and TNA recognize that expanded nursing functions should include history taking, physical examinations to determine health-illness status as well as evaluation and interpretation of assessed data in order to plan and administer appropriate health care.

Baccalaureate and masters programs preparing nurses to function in expanded roles are accredited by the National League for Nursing. The American Nurses' Association, in conjunction with appropriate medical and nursing specialty groups has developed guidelines for continuing education programs preparing nurses to function in an expanded role. The American College of Nurse Midwives accredits nurse midwifery programs. The Tennessee Medical Association and the Tennessee Nurses' Association support the national accreditation of programs preparing nurses to function in an expanded role. Education programs in Tennessee preparing nurses to function in an expanded role should be encouraged to seek national accreditation as soon as possible.

Professional nurses functioning in expanded roles including, but not limited to, the pediatric nurse practitioner, nurse-midwife, psychiatric-mental health nurse specialist, family nurse practitioner, critical care nurses and other nurse practitioners and nurse clinicians are or will be eligible for certification through the American Nurses' Association or specialty nursing organizations. The Tennessee Medical Association and the Tennessee Nurses' Association support national certification by ANA or specialty nursing organizations of professional nurses functioning in an expanded role. Professional nurses should be encouraged to work through their

nursing organizations for the development of certification in those practice areas not yet having access to such.

By the utilization of professional nurses functioning in an expanded role, the availability and accessibility of health care to the people of Tennessee can continue to be improved. National accreditation and certification provide mechanisms for assuring the quality of health care delivery by professional nurses functioning in expanded roles. Ultimately, physicians and professional nurses are accountable to the patient for the care each one gives.

Reference Committee D—recommended the resolution not be adopted and it be referred back to the Interprofessional Liaison Committee for more detailed consideration and further study.

ACTION: NOT ADOPTED

RESOLUTION NO. 5-74

Composition of the Tennessee Licensing Board
for the Healing Arts

By: HUEY H. PORTER, M.D.

MEMPHIS-SHELBY COUNTY MEDICAL SOCIETY

WHEREAS, This Board has the important function of issuing license and also of revocation of license to practice medicine in the State of Tennessee; and

WHEREAS, This Board's composition is determined by statutory requirements it will therefore require a change in the present statute of the State of Tennessee; and

WHEREAS, This Board as presently required is composed of: Commissioner of Public Health, State of Tennessee; Secretary of State; and Treasurer of State; and

WHEREAS, The present composition does not provide for proper representation of the medical profession of the State of Tennessee. Now, therefore be it

RESOLVED, That this House of Delegates recommend the Tennessee Medical Association Legislative Committee seek changes in the current statute to give the Board of Medical Examiners a mechanism to investigate and make recommendations concerning action against the errant physician to the Licensing Board for the Healing Arts.

Reference Committee A—recommended adoption of the resolution with the resolve to read, "That this House of Delegates recommend the Tennessee Medical Association Legislative Committee seek changes in the current statute to give the Board of Medical Examiners a mechanism to investigate and make recommendations concerning action against the errant physician to the Licensing Board for the Healing Arts."

ACTION: ADOPTED AS AMENDED

RESOLUTION NO. 6-74

Direct Election of TMA Alternates and
Delegates to AMA

By: THOMAS G. DORRITY, M.D.

WHEREAS, The Tennessee Medical Association Al-

ternates and Delegates to the American Medical Association do not now represent specific groups of doctors; and

WHEREAS, It would be desirable to give doctors of Tennessee specific liaison with their own elected representatives to the American Medical Association; and

WHEREAS, Election by geographic area does fix responsibility and allow a helpful, mutual and specific two-way communication between physicians and their representatives; and

WHEREAS, It is traditional at all levels of government to have elected officials represent specific areas. Now, therefore be it

RESOLVED, That the House of Delegates of the Tennessee Medical Association directs the Council to develop districts, based on a county and physician-population basis and thereby assign Delegates/Alternates to the American Medical Association on a geographic basis; and be it further

RESOLVED, That appropriate changes be made in the By-Laws to allow for such districting and times set for nomination, balloting and tabulating procedures for direct election of the American Medical Association Delegates and Alternates by district or area; and be it further

RESOLVED, That the vote on these changes be carried on by secret mailed ballot to the entire membership and the vote tabulated so that, if passed in the affirmative, nominations and elections can be completed before the next session of this House.

Reference Committee A—recommended the resolution not be adopted, since it was the Committee's feeling that the preponderance of testimony was against this resolution.

ACTION: NOT ADOPTED

RESOLUTION NO. 7-74

Professional Standards Review Organizations
(PSRO's)

By: THOMAS G. DORRITY, M.D.

WHEREAS, Public Law 92-603, Section 249F, Title XI, Part B, requires the establishment of Professional Standards Review Organizations by the Secretary of the Department of Health, Education and Welfare throughout the Nation; and

WHEREAS, These PSRO's exist as the pleasure of the Secretary of HEW and will function as directed by him or will be abolished and replaced by him whenever he determines that they are incapable of performing their designated duties; and

WHEREAS, These PSRO's will be required to set and judge national norms of medical care, diagnosis and treatment, have authority to determine in advance any elective admission of any Federally subsidized patient to any health care facility or any admission of said patient for extended or costly courses of treatment, will review the professional activities of physicians and other providers of health care in hospitals and in their offices as to the necessity, quality and economy of such health care, will maintain and review profiles of care

and services provided said patients and profiles on each health care practitioner and provider as regards quality and need for service rendered in institutions and in private offices, and will perform other duties under this law; and

WHEREAS, Physicians that are providers of health care who do not comply regularly in their treatment of Federally subsidized patients with the norms and standards determined by PSRO's and approved by the Secretary of HEW may have sanctions and fines up to \$5,000.00 levied against them and their unapproved activity or behavior publicized by the Secretary of HEW; and

WHEREAS, These PSRO's and, indeed, all physicians treating Federally subsidized patients, if they volunteer to assist in establishing said PSRO's will in effect become the agents of the Federal Government under virtual dictatorial control of the Secretary of HEW; and

WHEREAS, The establishment of PSRO's under this law, for the reasons noted above, directly interferes with the actual practice of medicine and is not in the best interests of our profession or of our patients. Now, therefore be it

RESOLVED, That the Tennessee Medical Association and the Tennessee Foundation for Medical Care, Inc., take no action to establish any Professional Standards Review Organization under Public Law 92-603.

Reference Committee C—recommended the resolution not be adopted.

ACTION: NOT ADOPTED

RESOLUTION NO. 8-74

Professional Standards Review Organizations
(PSRO's)

By: BLOUNT COUNTY MEDICAL SOCIETY

WHEREAS, The Professional Standards Review Organization provisions are illogical and ill-founded and will undoubtedly prove to be burdensome on the taxpayer and undoubtedly lower the quality of medical care. Now, therefore, be it

RESOLVED, That the Tennessee Medical Association, by action of its House of Delegates, adopts the following current position:

- (1) Working to effect repeal of the Professional Standards Review Organization, and
- (2) Lending its cooperation in the implementation of the law until repealed, in order that in the interim, the administration of the provisions of the law will remain under physician control.
- (3) It is in the best interests of our patients and our profession to seek appropriate modifications of Section 249F of Public Law 92-603 (PSRO) to effect elimination of the identifiable deleterious effects of this law.

Reference Committee C—recommended adoption of the resolution as presented. In the discussion two major amendments to the resolution were added by the House.

ACTION: ADOPTED AS AMENDED

RESOLUTION NO. 9-74
Professional Standards Review Organization
(PSRO)

Section 249F, Public Law 92-603
By: WEST TENNESSEE CONSOLIDATED
MEDICAL ASSEMBLY

WHEREAS, The Congress of the United States has seen fit to pass into law Section 249F, Public Law 92-603, to establish Professional Standards Review Organizations throughout the country; and

WHEREAS, With the establishment of Professional Standards Review Organizations private physicians will have to comply with government concepts of medical care as approved by the Professional Standards Review Organizations and the Secretary of Health, Education and Welfare; and

WHEREAS, It is our opinion that these concepts will be contrary to the established practice of medicine of physicians throughout Tennessee and the country as a whole. Now, therefore be it

RESOLVED, That the West Tennessee Consolidated Medical Assembly holds that the best interest of general health and welfare of the citizens of this country rests with *REPEAL* of Section 249F, Public Law 92-603.

Reference Committee C—recommended the resolution not be adopted.

ACTION: NOT ADOPTED

RESOLUTION NO. 10-74
Definition of Separate Billing by
Hospital Based Physicians
By: JUDICIAL COUNCIL

TENNESSEE MEDICAL ASSOCIATION

WHEREAS, The Judicial Council of the Tennessee Medical Association has previously sponsored in this House resolutions dealing with separate billing by hospital based physicians, these resolutions having been adopted as policy; and

WHEREAS, Substantial differences in interpretation of this policy exist among physicians in Tennessee; and

WHEREAS, This House clarified its stand on separate billing by physicians staffing hospital emergency rooms by adopting, in April, 1973 TMA Resolution No. 7-73 which stated in part that:

"It is ethical and legal for hospitals to serve as billing and collecting agents for physicians."
and TMA Resolution No. 8-73 which set forth the following guidelines:

1. Licensed physicians staffing Emergency Rooms in hospitals must charge for their medical services and shall bill their patients for such services.
2. Physicians' services shall be billed separately from hospital services.
3. Hospitals may serve as billing or collecting agents for physicians.
4. Physicians may pay hospitals reasonable compensation for the hospital's services as a billing or collecting agent.
5. Hospitals may pay physicians' salaries for hospital administrative services, supervisory responsibilities,

ities, educational activities and physical presence."; and

WHEREAS, The Judicial Council now reaffirms its previous position that the principle and guidelines quoted hereinabove are consistent with the Principles of Medical Ethics of the American Medical Association and of the Tennessee Medical Association. Now, therefore be it

RESOLVED, That the principle and guidelines quoted hereinabove are extended to apply to all physicians; and be it further

RESOLVED, That "separate billing" is defined as any billing method that:

1. Identifies the physician(s) who rendered services and
2. Identifies the fee(s) charged by the physician(s) for said services as line items separate from other charges appearing on the same bill and
3. Clearly states that the billing agent (hospital or other) is billing for the physician(s) at his request and on his instruction and
4. That residents in training programs be informed of the position of the Tennessee Medical Association regarding separate billing.

Reference Committee C—recommended adoption of the resolution and submitted several amendments to the resolution. The resolution was further amended by the House of Delegates to add a new Section 4 which reads: "That residents in training programs be informed of the position of the Tennessee Medical Association regarding separate billing."

ACTION: ADOPTED AS AMENDED

RESOLUTION NO. 11-74
Medicare and Medicaid Billing

By: McMINN COUNTY MEDICAL SOCIETY

WHEREAS, Patients presently receive payment notification from Medicare and Medicaid with a statement that the attending physician's services were for more than the allowable charge; and

WHEREAS, The statement as written at times discredits the doctor-patient relationship by implying that was an excessive charge by the physician; and

WHEREAS, The administering agency for Medicare and Medicaid has adopted the wording in its billing policy. Now, therefore be it

RESOLVED, That when a charge for services made by a physician is less than the allowable charge, that the billing statement shall indicate such and that the patient be so informed; and be it further

RESOLVED, The Tennessee Medical Association notify the proper Medicare and Medicaid officials of this action and to seek this change in the billing notification method.

Reference Committee C—recommended adoption of the resolution.

ACTION: ADOPTED

RESOLUTION NO. 12-74
Health Field Training Programs at
Community Level

By: HAMBLLEN COUNTY MEDICAL SOCIETY

WHEREAS, There is now a critical shortage of practicing nurses and other qualified health field professionals in the Hamblen-Grainger-Jefferson County area. The current nursing home and hospital expansion programs; the recent OSHA-Occupational Health Safety Standards Act requiring nursing personnel in industry; and the progressively stringent JCAH Standards of patient care will significantly increase the demands for these trained personnel; and

WHEREAS, To date it has been virtually impossible to recruit these personnel from the large city, academic, medical training centers; it is our belief that this problem is shared by other smaller medical communities across the state; and

WHEREAS, It is our belief that establishment of local training programs will more clearly provide a viable pool of working, trained, and licensed personnel for the smaller community, where there is a critical shortage of health field professionals, such as nurses. However, in the past it has been almost impossible to establish such local training programs. Now, therefore be it

RESOLVED, That it is our belief that the Tennessee Medical Association should support the establishment of qualified Health Field training programs at the smaller community level.

Reference Committee B—recognized the needs of smaller communities in obtaining nurses and other qualified health personnel and endorsed the resolution with the suggestion that the resolve be amended to read “should support the establishment of qualified Health Field training programs at the community level.”

ACTION: ADOPTED AS AMENDED

RESOLUTION NO. 13-74

Nursing Continuing Education Program

By: WILLIAMSON COUNTY MEDICAL SOCIETY

WHEREAS, The Tennessee Medical Association wishes to recognize that within each hospital within this state, new departments continue to arise in the field of intensive care, coronary care, post-operative care, newborn care and other specialty related departments; and

WHEREAS, It is difficult to obtain nurses and other nurse assistant personnel to provide the expertise needed in these new departments; and

WHEREAS, It has recently been brought to the attention of the Tennessee Licensing Board of Hospitals that there has been no academic control set over the qualifications of people working in these units; and

WHEREAS, It is absolutely necessary to continue to upgrade the nursing staffs within the locale they reside in most of the institutions across the state because these people cannot simply leave their homes and families to travel a prolonged distance to obtain post-graduate education. Now, therefore be it

RESOLVED, That the House of Delegates of the Tennessee Medical Association highly endorse and recommend to the Tennessee Nurses Association, the Tennessee Hospital Association and the Tennessee Hospital Licensing Board, that each hospital having special care areas provide a department of continuing education. Be it further

RESOLVED, That these departments be coordinated on a very high level and that the expertise necessary from the teaching institutions across the state along with coordination at the local level allow them to embark on a program of specialization of continuing education within the field of the specialty units as they are instituted in each hospital; and be it further

RESOLVED, That these continuing education departments be so professionally constructed that they can confer upon the graduates of their program certain merit awards and/or certificates to recognize the accomplishments of those who have fully completed the accredited course.

Reference Committee B—recommended the adoption of the resolution and endorsed the concept of need for continuing education in specialized areas of hospitals. The Reference Committee suggested the first resolve be amended to read: “RESOLVED, That the House of Delegates of the Tennessee Medical Association highly endorse and recommend to the Tennessee Nurses Association, the Tennessee Hospital Association and the Tennessee Hospital Licensing Board, that each hospital having special care areas provide a department of continuing education.”

ACTION: ADOPTED AS AMENDED

RESOLUTION NO. 14-74

Emergency Medical Services Act

By: MEMPHIS-SHELBY COUNTY
MEDICAL SOCIETY

WHEREAS, In 1972 the Emergency Medical Services Act was passed as a completely altruistic bill for the public good. This bill enhances the delivery of medical care to the people of the State of Tennessee. As such, this bill has served as a model for other states and has served the public well in Tennessee.

WHEREAS, Recent criticism that the bill has been implemented beyond the intent of the legislature but not beyond its legality has been voiced. This with the implied threat of repeal of the law and introduction of emasculating legislature prompts this resolution.

RESOLVED, That the Memphis and Shelby County Society feels this bill has been solely for the public good and that any legislation passed to modify it must pass close scrutiny, that it is not an effort of power groups or individuals to obtain personal or political gain, particularly if that act is an effort to reduce the effectiveness of the original bill. Now, therefore be it

RESOLVED, That this House of Delegates recommend that the Tennessee Medical Association adopt this same position and so publicly state.

Reference Committee B—recommended adoption of the resolution.

ACTION: ADOPTED

RESOLUTION NO. 15-74

Road and Highway Safety

By: W. M. COCKE, M.D.

**NASHVILLE ACADEMY OF MEDICINE AND
DAVIDSON COUNTY MEDICAL SOCIETY**

WHEREAS, Physicians of the State of Tennessee advocate a policy of maximum safety for all citizens who travel on the public highways of the State; and

WHEREAS, a substantial number of motor vehicle accidents and injury to the citizens of the State result from the intoxicated driver; and

WHEREAS, We the Physicians of the State of Tennessee recognize the above. Now therefore be it

RESOLVED, That a strong law be enacted by the State Legislature, and enforced by the law enforcement and judicial agencies of the State of Tennessee to remove from the public highways the "drunk driver."

Reference Committee A—recommended adoption of the resolution.

ACTION: ADOPTED

RESOLUTION NO. 16-74

**"Med-Help" Program—A Medical
Information Service for the Public**

By: BOARD OF TRUSTEES

TENNESSEE MEDICAL ASSOCIATION

WHEREAS, The Tennessee Medical Association is desirous of improving its public image; and

WHEREAS, The Memphis and Shelby County Medical Society has, in conjunction with the Chancellor of the Tennessee Medical Units and the Memphis Regional Medical Program, developed a public information program relating to common medical problems; and

WHEREAS, Manuscripts and tapes on various medical topics have been prepared by the members of the Memphis and Shelby County Medical Society, and approved as to their medical content by the public information committee of the local medical society; and

WHEREAS, This public information service is known as "Med-Help" (Medical-Health Education Listening Program) and is a dial access telephone service utilizing a telephone answering service; certain electronic switching gear; and approximately 45 tapes covering various common health topics (examples: fever in infants, chest pain, convulsions, headaches); and

WHEREAS, That "Med-Help" has been operational in the Memphis area for approximately two years, 24 hours each day, and reaction from the public in this area has been very favorable (50 to 100 telephone requests each day for medical information); and

WHEREAS, The purpose of Med-Help is to provide an authoritative source of easily accessible information on common health problems, but not to replace the patient-physician relationship; and

WHEREAS, There are currently monies available for expansion of this service from the Memphis Regional

Medical Program so as to facilitate this service on a statewide basis; so as to provide this service free of charge to the public. Now, therefore be it

RESOLVED, That the House of Delegates of the Tennessee Medical Association endorses the concept of extending this public information service to the people of Tennessee for a 6 months trial period; through the use of a Wide Area Telephone Service line (WATS line); and be it further

RESOLVED, That prior to any announcement of this Med-Help service to the public within a Tennessee community, that endorsement of this service by the local county medical society and the Tennessee Medical Association, be successfully achieved; and be it further

RESOLVED, That at the completion of the above stated 6 months trial period, that a progress report be submitted to the Tennessee Medical Association.

Reference Committee D—expressed its appreciation of the offer of the Med-Help Program to the Tennessee Medical Association. The Committee amended the second resolve to add "and the Tennessee Medical Association," and with this amendment, recommended adoption of the resolution.

ACTION: ADOPTED AS AMENDED

REPORTS OF OFFICERS

REPORT OF THE PRESIDENT

MORSE KOCHTITZKY, M.D.

The abstract of the President's Report states that:

"Activities along the broadest front in the history of the Tennessee Medical Association exemplified maturity, capacity, and service to the profession. One cannot serve in the position of the President and not appreciate the devotion and efficiency of those who provide the leadership to implement the policies and directives of the Association through the House of Delegates, the Board of Trustees, Committees, and the Judicial Council." The report pointed out that Medicine or the science in which it is based does not need a revolution to progress. The President viewed with trepidation the steady encroachment of government, highlighted by such schemes as National Health Insurance, HMO's, PSRO's, and many others. It was pointed out that the profession has slipped to a dangerously low level and many vocal and effective complainers abound. The President reviewed his efforts for greater unity within the profession, and that the past year confirmed his impression that Medicine's survival as a viable organization in the future will result only if physicians are highly united, and able to speak and act authoritatively for members of the Association.

"Medicine cannot tolerate discord among the rural and urban physicians, between the practicing and the academic, between the black and the white, and between the young and the old."

The President's Report revealed the belief that strong and viable forces in the Nation and some in Tennessee, are dedicated to changing the entire system of medical care delivery. These forces are organized and dedicated to their cause and seem to have adequate financing. Unity includes a strong county medical society, and a strong TMA and a strong AMA.

"As public expenditures for health care increase, and the number of people affected become larger, so does the need for public accountability become more apparent. The report stated that a nationwide network of Professional Standards Review Organizations is a glaring example and a program that will be an administrative monstrosity. The program objective is for quality of care, but let us not forget the real purposes are for cost control. Most physicians would need no convincing of this. Government rarely subsidizes freedom. We claim the individual in our society as paramount, but we do not act accordingly. We wait until there is a law to force us to do something we ought to do ourselves."

"The report pointed out that untoward changes occurring are really not of Medicine's doing, but have been pressed upon physicians for the most part. It is our responsibility to try and mold and guide these changes so that we can continue to deliver the best medicine to our greatest responsibility—our patients.

The report called for organized medicine to "stay on top of the PSRO issue." Many organizations are working tirelessly in an attempt to take over peer review. Physicians must do peer review or bear the consequences of bureaucratic regimentation. Let it not be said in the future that Medicine sank its own ship.

The report stated that PSRO will likely prove to be the destructive instrument of one of the finest health delivery systems in the world. Medicine should attempt to make PSRO work as long as it is law. If this prerogative should ever be taken away from physicians, that will be the time to show our real strength of cohesiveness and purpose of action.

The President's Report stated that the Board of Trustees supported repeal of PSRO at its October, 1973 meeting. The report reviewed the organization of the PSRO area designations and pointed out that in Tennessee, there are two

areas designated.

The President reviewed many of his activities, including appearances on television and radio talk shows, a number of county medical societies visited, attendance at two national leadership conferences sponsored by the AMA, and the two sessions of the AMA House of Delegates. The report did not comment on or review the many activities of TMA. These will be made in other reports. The President stated that as TMA's spokesman, he had worked at great lengths to actively represent physicians of Tennessee.

The report stated that the Association's priorities should follow the recommendations made to the House of Delegates in 1973. It was stated that TMA often takes on too many projects, and as a result, none of them receive the funds, time and concentration required to make them work. It was urged that the following recommendations be followed:

1. PSRO's—We must be extremely active and involved in the whole concept of peer review.
2. We must be active in all facets of legislative activity, political action and governmental relations on all levels.
3. Throughout our ongoing program already established, a dedication and major improvement in our efforts to make an effective ongoing continuing medical education program for physicians is a must for our membership.
4. The President urged that all physicians should guide their own destiny by direct charges to their patients and to avoid contracts with those entities or institutions that sell the physicians' services. The report stated that this was a growing ethical problem in the state.

In dealing with what the future holds for Medicine in Tennessee, the report stated that different factors are influencing the medical care delivery system. Demands for quantity and quality of health care are at an all time high. The migration of more and more new physicians into salaried positions with the government, industry, hospitals and other regulated entities is a discouraging development since we need these medical graduates in the free enterprise patient care system. The report pointed to the largest increase in Association membership that has been experienced in the last ten years.

The report concluded by pointing out that already we are hearing that a National Health

Insurance bill will be presented by the latter part of 1974 or early 1975.

Another important factor in today's complex medical care equation is the malpractice problem. Burgeoning government health programs will in all likelihood increase liability and malpractice suits. As Medicine participants in these activities, we will improve care, be conscious of its cost, and help overcome the manpower shortage.

The President gave thanks to his associates who are officers, Trustees, dedicated Committee members, dedicated staff, and many loyal friends who have worked diligently in carrying out the work for the past year. The President thanked members of the House for their confidence and support, and for the privilege and honor of having had the opportunity to serve as the TMA President in 1973-74.

THE REFERENCE COMMITTEE D—commended the President for his most informative report and thanked him for his efforts and achievements throughout the past year.

THE HOUSE accepted the report.

REPORT OF THE BOARD OF TRUSTEES

J. KELLEY AVERY, M.D., *Chairman*

The report pointed out the Association's expanded business and as such continues to make heavy demands upon the time of the Trustees. Five meetings of the Board were held during the year, two of which were for two-day sessions. The report revealed that abstracted minutes of the Board of Trustees are highlighted in the JOURNAL following all Board meetings. The report revealed the number of activities such as correspondence and visits to component county medical societies, the AMA, and various organizations.

The report revealed that the Board had acted upon 115 items of business in the sessions conducted during the last twelve months. This did not include telephone conference calls and business conducted by mail. Such matters as administration, personnel, TMA membership, Annual Meeting, exhibits, JOURNAL advertising, and administrative activities are included in the Executive Director's report and Committee reports. Finances are presented in the report of the Secretary-Treasurer.

In the last twelve months, members of the Board have given more time to representing the Association than in normal years. Decisions have come only after much discussion, deliberation, and soul-searching. The Board has been especially

involved with the most significant, far-reaching issues that has ever been faced by physicians, i.e., the Professional Standards Review Organization law (PSRO—Public Law 92-603).

The Board approved legislative actions, communications, and has been greatly concerned with the doctor shortage. The report revealed testimony and appeals to HEW of regulations set forth in the *Federal Register*, and protested vigorously to HEW on designations of PSRO areas; pre-admission policies for hospitalization of Medicare patients; testimony to seek assurance that physicians would receive an adequate amount of fuel in the energy crisis; and had taken every possible step it could in appeals on behalf of physicians in the Cost of Living Council for decontrolling physicians' fees.

It was stated that the Board's report was for the purpose of a broad overview of the Association's activities. The report dealt with the formation and ongoing activities of the Tennessee Foundation for Medical Care, Inc. It was reported that the Board administers its business through the Executive Committee and six other Board committees. The Board's management responsibilities are many. It studies major issues, considers and recommends programs and procedures to meet TMA's objectives, it assesses problems confronting the profession in the State, and the role of TMA in respect to these problems. It is the implementing body through which the House of Delegates, committees and staff conducts policies and programs approved by the House. The Board at all times seeks to maintain with funds available, the fiscal soundness in controlling the financial affairs of the Association. The report summarized significant actions taken during the 1973-74 year.

Following are abstracted highlights of some important items of business acted upon by the Board during the past twelve months. The Board:

- Consulted with the Editor of the TMA JOURNAL concerning printing costs, makeup, number of pages in the JOURNAL, and publication policy.
- Reviewed with the Chairman of the Continuing Medical Education Committee TMA financing of the CME program.
- Appointed members of the Board of Directors of the Tennessee Medical Foundation.
- Appointed members of the Board of Directors of the Tennessee Foundation for Medical Care, Inc.
- Heard a report and studied policy pertaining to the Physician's Assistants Bill, the Certificate of Need Bill, both of which were before the General Assembly.

- Discussed and studied the foreign medical school graduate problem. The Board directed that a letter be sent to the Secretary of the Board of Medical Examiners, and to the Board of Basic Science Examiners, expressing concern of the time required for recent graduates and those interested in coming into the state and becoming licensed. The idea was to step up more frequent examinations in order to license more quickly physicians seeking to practice in Tennessee.
- Studied reorganization of the TMA staff, considered need for additional staff, and evaluated cost factors involved in such changes. The Board established a Management Consultant Committee to consult and advise with the Executive Director on administrative and personnel requirements. Instructed the Executive Director to develop a revised staff structure for TMA administration.
- Approved a report from the Publications Committee of the Board concerning TMA JOURNAL publication costs.
- Adopted action for TMA to assume the financing of the Continuing Medical Education program for calendar year 1974.
- Studied House Resolution 17-73, rights of medical students, wherein these students would be represented in the House of Delegates. Resolution No. 1-74 is introduced in this session of the House to implement this action.
- Adopted the revised staff organizational structure submitted by the Executive Director.
- Invited TMA Delegates to AMA to meet regularly with the Board of Trustees at its quarterly meetings.
- Heard a report from the TMA Student Education Fund.
- Accepted a report for information on a survey of health care in the jails in Tennessee.
- Endorsed 1973 Medigap Bill in the Congress.
- Determined attendance and authorized expenses for a two day, six-state information meeting on PSRO in Atlanta. All Board members were urged to attend the Atlanta Conference.
- Heard a report and discussed at length the problems involved with the Physician's Assistant Bill. A committee of the Board was named to meet with representatives of the State Ophthalmology Society to reach an agreement. A report was required to be brought to the October meeting of the Board.
- Approved a request that TMA co-sponsor the Medical Audit Workshop with the Tennessee Hospital Association.
- Heard a report from the special Board committee meeting with a large representation of ophthalmologists concerning the Physician's Assistant bill. Adopted a motion that efforts be made to withdraw the Physician's Assistant bill in 1974, and take steps to oppose the bill if it came out of Committee without the removal of objectionable amendments placed on the bill by the Optometric Association.
- Approved Annual Meeting dates for the 1975 and 1976 TMA sessions.
- Appointed members to the IMPACT Board of Direc-

tors.

- Adopted action urging Officers and Trustees to visit county medical societies and report activities of TMA, and to continually seek and develop rapport with county societies.
- Approved the Travel Committee's recommendation for the 1974 Winter Tour to the Island of Barbados.
- Studied at length the issue presented to TMA on the clinical pharmacy residency in psychiatric programs. In studying the presentations, it was the opinion of the Board that what was proposed included the practice of medicine by a non-MD. *The Board opposed this program* and did not give its endorsement.
- Adopted a motion to co-sponsor along with other states, a regional Mental Health Conference in Atlanta in cooperation with AMA.
- Adopted a motion that the Board go on record to support mandatory insurance coverage for the newborn in Tennessee, and to support this bill in the General Assembly.
- After careful study and amendments, approved the proposed TMA budget for the calendar and fiscal year 1974.
- Adopted a motion that TMA lend its support to the repeal of the Professional Standards Review Organization Law. The action was to support the bill by Congressman Rarick of Louisiana, designated as H.B. 9375 in the United States Congress.
- Upon request from the Governor, appointed a physician as a TMA representative on the Task Force to study the Workmen's Compensation Law.
- Heard a resolution and report from the East Tennessee Radiological Society, and adopted a motion to send the resolution to the TMA Judicial Council with the recommendation that the Council take action to discipline those physicians who do not comply with the ethical determinations of the TMA.
- Heard a lengthy report on a major problem in Tennessee pertaining to lack of incentives for replacing blood. As a result, the Board adopted action that this matter be referred to the TMA Committee on Blood Banks and Medical Laboratories, and requested the TMA attorney to assist the Committee in this undertaking.
- Selected physicians to receive TMA Distinguished Service Awards for 1974.
- Appointed those physicians to serve on Standing and Special Committees of TMA in 1974-1975. Final approval of these appointments are to be made by the Board following the close of the annual session of the House of Delegates on April 13.
- Heard a report from the Chairman of the Board's Finance Committee pertaining to TMA employees' compensation plan, and adopted a resolution to implement the agreements with the Executive Director and the Assistant Executive Director.
- Delegated the Finance Committee to further study a plan of fringe benefits for staff employees.
- Heard a report from the Chairman of the TMA Insurance Committee on the matter of out-of-state expert witnesses testifying in malpractice cases in Tennessee.
- Heard a report from the Executive Director as to

The Distinguished Service Award is presented annually by the Board of Trustees of the Tennessee Medical Association to physician members who have made eminent contributions to the public welfare or to the advancement of medical science. At the 139th Annual Meeting of TMA on April 12, the Chairman of the Board of Trustees announced that there were three recipients of the award in 1974, one of which was a dual award. The following are those who received the award.

Thomas F. Frist, Sr., M.D., Nashville, was born in Meridian, Mississippi. He was educated in the public schools and received his B.S. Degree at the University of Mississippi, and his M.D. Degree from Vanderbilt University in 1933. He is associated in practice with six internists. He and his wife have five children including two physicians, one son entering medical school, and two daughters.

The recipient has been known for many years as an excellent bedside teacher of both medical students and house officers. He has participated in the teaching program at Vanderbilt University Medical School, St. Thomas and Baptist Hospitals, and Nashville General Hospital, and presently is participating in a preceptorship program of the Vanderbilt Medical School, and the University of Alabama Medical School. He has made it possible for many students to attend medical school who otherwise could not have pursued their training. His primary work has been in cardiovascular disease, and he has been active in the education process for nurses in coronary critical care programs initiated in his community. He has contributed a number of articles in the scientific and socio-economic aspects of medicine.

In 1959, the recipient was one of seven founders of Park View Hospital, and later was co-founder of the Hospital Corporation of America, which now has some sixty hospitals in thirteen states and several foreign countries. He has taken pride in having founded an entity that is delivering health care in many areas that previously had inadequate or no hospital with quality care being rendered as economically as possible.

For twenty years this recipient has been on the board of Nashville's Metropolitan Hospital, which now operates some sixteen hundred beds, and it has been his dream and ambition to develop a comprehensive medical program on one campus including acute general hospital care, an extended care hospital, a long-term chronic hospital, a boarding house facility, rehabilitation center, a strong out-patient department, an emergency medical center, a psychiatric and drug center; and it now seems that this will shortly be developed and approved by the Metropolitan Hospital Board. In addition, he has served for the past fourteen years as vice chairman of the American Medical Association's Committee on Aging.

This recipient is a founder of the Medical Benevolent Foundation, which is a foundation consisting of some four thousand physicians and dentists in the southeastern states to aid Presbyterian medical missionaries in foreign countries in obtaining proper

DISTINGUISHED SERVICE AWARD

equipment to deliver medical care. Over a million dollars has been raised since the formation of the Foundation. He is also founder and chairman of the board of Park Manor Presbyterian Apostrophe for the Elderly, and co-founder and chairman of the fund raising committee for Cumberland Foundation for Rehabilitation of Alcoholics.

His contributions in legislative matters have been unnoticed by most. While providing medical advice to Tennessee Governors for twenty years, he has been instrumental in keeping the physicians' viewpoint before legislative bodies and government officials.

The Board of Trustees took great pleasure in presenting the Award to Dr. Frist.

* * *

William G. Crook, M.D., Jackson, is a physician whose family name is synonymous with the history of the Tennessee Medical Association. Both his father and grandfather were Past Presidents of the Association. His father was also the co-founder and later President of the Southern Medical Association.

A native of Jackson, Tennessee, the recipient received his B.A. Degree from the University of South, and in 1942 received his M.D. Degree from the University of Virginia School of Medicine. After completing military service and a postgraduate fellowship and residency, he returned to Jackson and began a solo practice in pediatrics.

Looking for an improved way of caring for children, he conceived, planned and developed a system of comprehensive pediatric care. The recipient and his four associates in 1970 began to experiment with different concepts of management in their Children's Clinic in Jackson. By utilizing allied health personnel such as nutritionists, social workers and various types of therapists, they were freed from numerous management problems enabling them to provide more comprehensive care to more patients. Other approaches designed to improve service included staggering the doctors' hours and keeping the Clinic doors open in the evening hours.

With his concepts proving to be effective, the recipient was asked to present exhibits at the American Academy of Pediatrics in 1970 and 1971, and in educational materials and management techniques that have been developed and marketed to pediatricians nationwide.

After three years of research laying the groundwork, he has put into operation in Jackson the concept called the "Pedicenter." Key features of the Pedicenter include walk-in or drive-in examination rooms, wide use of support personnel for scheduling, developmental screening, laboratory work open seven days a week until nine o'clock at night, and with few exceptions (like x-rays), everything required to or for a patient is done in the examination room. The doctors' hours are staggered and designed for his own patients without loss of quality or personal touch.

The Pedicenter was designed with flexibility

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2.
The Board was proud to present the Award to
L Crook.

* * *

Robert E. Richie, M.D., and Stephen Schillig, M.D., Nashville, are two physicians dedicated to emergency medical service in the Nashville-Davidson County area. Beginning in 1971, they initiated a training program for Emergency Medical Technicians at Nashville General Hospital. With the advent of training guidelines from the U.S. Department of Transportation, they modified their training programs to meet standards and subsequently graduated the first thirty Emergency Medical Technicians to be certified in Tennessee. These initial efforts have been far-reaching in that other courses were conducted that included personnel from the entire mid-state area with the aim of providing trained individuals that could assist area physicians in organizing and conducting similar courses.

Their dedication has had an even greater effect locally in Nashville. Of particular significance has been their work with the Metro Nashville Fire and Police Departments in training key personnel in techniques of emergency medical care. Subsequently, the Police Department has incorporated into its rookie training program, a forty-hour course that is designed primarily by these two physicians.

At the present time, the recipients are active in coordinating physician participation in the Nashville-Davidson County area for EMT courses conducted by the State Department of Public Health. Also, in cooperation with the critical nursing division of the University of Tennessee-Nashville School of Nursing and the State EMS Department, they have developed a pilot program (480-hour course) for training Emergency Medical Technicians-Advanced.

Not only have these two physicians been pioneers in curriculum development and training, but their knowledge of emergency medical services has been valuable in planning for comprehensive emergency service in Nashville. As members of the Mid-Cumberland EMS Advisory Committee, they were instrumental in establishing a communications system that is vital to any emergency medical service. This system known as "Med-Com" is headquartered at the Nashville General Hospital and serves the 13-county Mid-Cumberland area.

The Board was pleased to give this Award jointly to Drs. Richie and Schillig.

the procedure implemented to seek an appropriate exemption for all county medical societies under a group exemption for Internal Revenue reporting by county medical societies.

- Approved insurance coverage for private psychiatrists under Medicaid.
- Went on record opposing the formation of a Department of Human Services.
- Approved a request from the Emergency Medical Services Committee to recommend to the Tennessee Department of Emergency Medical Services application for a \$400,000 grant for a communications system for emergency services in Tennessee.
- Studied suggestions for introduction of resolutions in the TMA House of Delegates.
- Studied staff travel expenses, and delegated this matter for further study and action to the Finance Committee of the Board, with the instruction to work out an equitable reimbursement to affected employees to give them relief in the rising cost of fuel and travel.
- Studied Resolution No. 87 by the AMA concerning Medico-Legal Investigation of Deaths. It was the Board's recommendation that this matter be sent to the State Medical Examiner, and request him to advise and report how TMA could approach this issue, and request his recommendations as to how TMA can support him in improving the investigation of deaths in Tennessee.
- Officers and Board members were urged to attend the AMA National Leadership Conference in Chicago, January 25-27. It was directed that a letter be sent to all county medical societies urging that representatives be encouraged to attend the Conference.
- Approved a request from the Blount County Medical Society for TMA legal counsel to assist and advise the medical staff pertaining to requirements of JCAH upon medical staff members. This matter had to do with hearings and appeals. The Blount County Medical Society requested advice on the legal position of the medical staff.
- Approved the efforts by the Executive Director and the Director of Continuing Medical Education to get the TMA general scientific program certified wherein physicians attending could get credit for postgraduate education. The Board approved the site visit to be made during the 1974 Annual Meeting.
- Heard a report and discussed at length the subject of communications between physicians and the public. The Board directed that the TMA Committee on Communications and Public Service develop a program wherein Medicine and the media could get together to work out some of the issues.

The Board reported that all directives of the 1973 House had been processed. The Trustees diligently studied and administered a number of other matters through the Executive Committee of the Board.

THE REFERENCE COMMITTEE D—commended the Board of Trustees for their diligent and valuable work throughout the year and their most informative report.

THE HOUSE accepted the report.

REPORT OF THE
SECRETARY-TREASURER

JAMES W. HAYS, M.D.

The report stated that the annual audit of the Tennessee Medical Association's financial affairs for the fiscal and calendar year ending December

31, 1973, had been completed. The audit was submitted, and approved by the TMA Board. The report revealed the summary of accounting policies and the basis of accounting. It also included notes to financial statements. The accountant's audit for 1973 is available for examination.

TENNESSEE'S OUTSTANDING PHYSICIAN OF THE YEAR

Robert P. Ball, M.D.

Each year county medical societies in Tennessee are given the opportunity to present candidates for one of the Tennessee Medical Association's highest honors—the Outstanding Physician of the Year. The candidates may represent any specialty and may be selected for service to the community, a civic project, scientific and medical achievement, or any other activity which a county medical society determines the candidate to be outstanding.

For the seventeenth year the House of Delegates of TMA elected from three worthy candidates, a truly outstanding physician for this high honor.

Robert P. Ball, M.D., Oak Ridge, was born in Harlan, Kentucky, July 14, 1902, attended public schools there and had his undergraduate training at Centre College and at the University of Louisville.

He received his medical degree from the University of Louisville in 1924.

During the next four years, he achieved an exemplary record while training in the fields of pathology and surgery at Louisville City Hospital, and at the Cleveland Clinic.

On completion of his training in 1928, Dr. Ball was appointed acting head of the Department of Pathology at Louisville Medical School and Louisville City Hospital, the same year in which he began his private practice of surgery. He continued his private surgical practice when he returned to Harlan in 1930.

While at the University of Louisville, Dr. Ball became extremely interested in the field of radiology, an interest which he continued to pursue at Erlanger Hospital in Chattanooga.

By undertaking an intensive, independent course of study, he successfully passed his radiology boards and became a Fellow of the American College of Radiology.

Dr. Ball then began a brilliant career in radiology, beginning with his appointment as assistant professor of radiology at the Columbia University College of Physicians and Surgeons, and a simultaneous appointment as assistant attending radiologist at Presbyterian Hospital, and at Vanderbilt Clinic.

During World War II, Dr. Ball served in the U. S. Army Medical Corps as consultant in radiology for the European Theater of Operations from 1942 until 1945. Following his discharge from the service, he received an appointment as civilian consultant in radiology to the U.S. Surgeon General. By 1948, he had attained the position of professor of radiology at the College of Physicians and Surgeons and, in 1949,

was appointed professor of radiology and radiologist-in-chief at Cornell University Medical College and New York Hospital, positions he held until 1951.

It was in 1952 that Dr. Ball entered private practice as a radiologist and head of the radiology department of Oak Ridge Hospital. During his 22 years in Oak Ridge, Dr. Ball has earned the respect of his colleagues, not only for his outstanding work in radiology, but for the manner in which he has developed and maintained a high quality and most effective department. His effectiveness over the years has been complemented by his intense dedication to his work and his compassionate care of his patients.

Dr. Ball has made numerous contributions to medical literature in the fields of medicine, surgery, pathology and radiology. He achieved international prominence with the development of a technique for roentgen pelvimetry and fetal cephalometry. As an adjunct to this special technique, he invented the Ball Calculator to assist radiologists in interpreting pelvimetry. His work in this area is still accepted as authoritative and appears in medical textbooks both in the United States and abroad. Because of his outstanding work and unique contributions in his field, he was granted an Honorary Doctorate Degree from Centre College in 1948.

As a private citizen, Dr. Ball has been an active and generous supporter of numerous civic and cultural organizations and pursuits. In addition to his many contributions to a variety of civic groups, he has maintained active memberships in the Oak Ridge Community Art Center, the Oak Ridge Civic Music Association, Oak Ridge Community Playhouse and Rotary International.

One of his special and continuing interests has been in the field of conservation. It was this interest that prompted Dr. Ball to spearhead the creation and subsequent development of the University of Tennessee Arboretum Society and the Arboretum itself, which is located in Oak Ridge.

As instigator and chief planner of the Arboretum and the Arboretum Society, he was active in securing legislation for the establishment of a local conservation board which was empowered to secure and designate recreational and wildlife areas and parks.

Because of his outstanding work in the field of radiology, his many significant contributions to medical literature and his dedication to patient care, the Roane-Anderson County Medical Society was very proud to recommend Dr. Ball for this award.

The condensed financial statement has been prepared in the format similar to the annual audit in order to show the assets, liabilities and fund balance, operating revenue and expenditures for the Association. The fund accounting method by specific purposes is used. The carrying value of property has been reduced by recording depreciation on a straight line basis and recorded as an expenditure in the property fund. No provision has been made for possible losses on notes receivable. Also, no provision has been made for any possible unrelated income tax that might be assessed by the Internal Revenue Service.

The report pointed out that while TMA had been able to adequately take care of the financial requirements in 1973, the Board of Trustees must determine TMA's financial requirements from two to three years in advance.

As a result of the largest single year in membership growth in any recent time, it was possible to take care of additional expenses, escalating costs and the rapid inflation taking place. The Association does have a reasonable reserve, but ongoing requirements can reduce this rapidly. The report strongly pointed out that in the next twelve to eighteen months, the Association is going to have to face up to higher dues if the organization is to carry on even the present program of work. TMA is a medium-large medical association, seventeenth in size in the United States, yet only three states have a dues structure lower than TMA and that by only \$5. The Secretary-Treasurer urged the House to be mindful of this situation in the next twelve to eighteen months.

A condensed financial statement taken from the operations report of the official audit is a part of this report.

The operating fund is the active day-to-day accounting for expenditures of the Association's financial operations, organizational and administrative activities. TMA has just over a year's budget in reserve, and all of the income from the reserves is used in the operating fund for ongoing expense, a significant item that greatly aids in our financial requirements.

The 1974 budget was approved by the Board of Trustees in its October quarterly meeting in 1973, and approved by the Finance Committee after being carefully studied and amended. There is no allowance in the 1974 budget for any contingencies. The budget for the 1974 calendar year is \$334,175. This represents approximately a 9.6 per cent increase over the 1973 budget.

Normal increase of activities and expenditures is now in excess of 10 per cent. Many of our increased expenditures are unavoidable since taxes, postage, Social Security, and multiple items, services and supplies used by the Association, have greatly increased. Inflation takes a deep cut out of revenue.

The Board of Trustees and Secretary-Treasurer examine and approve income and expense statements of fiscal transactions at each quarterly Board meeting, and a monthly summary of income and expenditures is reviewed by the Secretary-Treasurer.

TENNESSEE MEDICAL ASSOCIATION
Nashville, Tennessee

CONDENSED BALANCE SHEET
December 31, 1973

	Total	Readership	Advertising
INCOME			
Allocation of			
Dues	\$17,540.00	\$17,540.00	\$
Advertising	29,449.60		29,449.60
Subscriptions	1,102.47	1,102.47	
	<u>\$48,092.07</u>	<u>\$18,642.47</u>	<u>\$29,449.60</u>
EXPENSES			
Printing and			
Distributions	\$35,721.58	\$23,315.63	\$12,405.95
Editor and			
Board	3,125.00	3,125.00	
Clerical			
Assistance	600.00	600.00	
Clipping Service	615.50	615.50	
Supplies	64.37	64.37	
Overhead	22,997.30	15,331.54	7,665.76
	<u>\$63,123.75</u>	<u>\$43,052.04</u>	<u>\$20,071.71</u>
EXCESS			
EXPENSES	<u>\$15,031.68</u>	<u>\$24,409.57</u>	<u>(\$ 9,377.89)</u>

OPERATING STATEMENT
YEAR ENDED DECEMBER 31, 1973
(Condensed Financial Statement—
January 1-December 31, 1973)

	1973	1972
Exhibits and Annual		
Meeting	\$ 10,640.00	\$ 12,735.00
*TMA Dues	258,145.00	247,577.50
**Journal Advertising		
(\$29,449.60)		
Investment Income	24,550.47	16,942.32
Building and Mis-		
cellaneous Income	8,911.10	8,784.85
TOTAL	<u>\$302,246.57</u>	<u>\$286,039.67</u>

EXPENDITURES

	1973	1972
Administrative and Auditing	\$140,103.34	\$128,568.54
***AMA Delegates and Hospitality		
Annual Meeting—TMA	18,396.90	15,581.18
Attorney	7,650.00	5,950.00
Board of Trustees—		
Committees-Council	14,854.30	17,688.67
Headquarters Building	8,722.09	7,583.16
Health Careers	1,250.00	1,250.00
IMPACT	3,000.00	3,000.00
**JOURNAL—TMA (See Separate Report)		
Legislative Expense	5,185.81	7,708.62
***Staff Salaries and Employee Insurance		
Taxes	5,554.06	3,851.34
Staff Travel	10,093.97	8,512.85
Miscellaneous and Other Expenses	1,220.15	3,138.82
TOTAL	\$216,030.62	\$202,833.18
Excess JOURNAL Costs (\$ 15,031.68)		(\$ 11,282.33)
Excess of Revenue Over Expenditures	\$ 71,184.27	\$ 71,924.16

*Additional Amount of \$17,540.00 of dues allocated to JOURNAL. (See report.)

**See JOURNAL Income and Expense Report (\$29,449.60 from Advertising).

***Included in Administrative Expense.

THE REFERENCE COMMITTEE D—reviewed the report of the Secretary-Treasurer and recommended the acceptance of the report.

THE HOUSE accepted the report.

REPORT OF THE JUDICIAL COUNCIL

HARRY A. STONE, M.D., *Chairman*

The report stated that three meetings of the Judicial Council were held in 1973-74. Due to the volume of business and the need to expedite the business, the Council has voted to meet quarterly.

The Council had studied "The Sick Doctor Law." Recommendations are being prepared for review by the legal counsel.

The report pointed out that practically all Councilor Districts are having problems regarding unethical conduct by members and non-members of the Association. Often associated with breeches in ethical conduct, are violations of the law. The report went into some detail on the offenses and problems that are occurring. The report also presented the problem of the unethical

and legal aspects of the unlicensed physician.

The legal and ethical problems associated with the hospital-based physicians continue to be studied and viewed with concern. There still remains disagreement regarding the definition of separate billing. The report pointed out that the Council was submitting a Resolution to further update policy on this question.

The report stated that annual reports required from the county medical societies to be submitted to the Council are often not made and are difficult to obtain. The Council cited the requirements of Chapter IV, Section 2 of the Constitution and By-Laws, and suggested that those societies that failed to file their Councilor report should be denied the seating of their Delegates at the annual sessions of the House of Delegates. Numerous ethical problems were referred to the component medical societies to resolve with the assistance of the District Councilor.

THE REFERENCE COMMITTEE D—recommended acceptance of the Judicial Council report.

THE HOUSE accepted the report.

REPORT OF THE EXECUTIVE DIRECTOR

MR. J. E. BALLENTINE

The Executive Director abstracted his report and stated that it was not the intent to use the report to repeat or infringe on other reports being made.

Reviewing the record, it was stated that TMA serves some 3,800 physicians and the public in Tennessee. It conducts programs to advance professional and economic affairs of its members and provides specific personal services and benefits.

The report stated that the headquarters of TMA in Nashville is the "front door to Medicine in Tennessee." The decisions of TMA—the one organization representing the State's medical profession—influences the entire medical and health industry. The report stated that the Association is and must continue to be a relevant and action-oriented organization.

The report presented five important areas that deserve special attention. They are: (1) continuing education and accreditation; (2) peer review (PSRO's), grievance and disciplinary functions; (3) participation in TMA programs and group insurance offerings; (4) continued effective legislative grass root support; and (5) communication with TMA membership.

The annual sessions of the House of Delegates

are the stock taking, in the course of which TMA can analyze its position on a number of policy matters. The Executive Director and the staff are constantly involved with the ongoing business from year to year. The affairs of the Association extend to many directions; involving the Board of Trustees, the Committees, and various bodies. The staff functions in all of these.

Some of the responsibilities of the TMA Executive Director and staff are:

- Development and continuous monitoring of the budget.
- Membership administration.
- Staffing AMA Delegation.
- Service to TMA officers, Trustees and committees.
- Staffing of the Judicial Council.
- Development of information and material to officers and committees.
- Services to component medical societies.
- Leadership development.
- Cooperation with specialty societies.
- Publication of the JOURNAL, the *Newsletter*, and other publications.
- Administration and implementation of TMA's legislative program.
- Liaison with allied professions.
- Liaison with governmental agencies (state and federal).
- Coordination, planning, and staffing of the Annual Meeting, House of Delegates, and other conferences, seminars and meetings.
- Maintenance of all TMA records, including financial and membership.
- Dues collection.
- Providing informational service to the public and various agencies.
- Reproduction of information for distribution to members.
- Maintaining building and property.

These are merely a sampling of some of the administrative procedures and activities in which the staff is engaged.

The Executive Director is basically responsible for management of the headquarters staff. These mainly include implementing policies and approved programs of the House of Delegates, Board of Trustees, officers, Judicial Council, and Committees. The staff is available to assist the county societies, particularly in obtaining physicians' viewpoints of the Association and its work. One item occurs each year pertaining to the volume of business thrust upon TMA. It has been greater than previous years—since the number of issues as the result of government intervention in health care has called for increased organizational, management, administrative, and decision making on many issues.

The Board of Trustees directed in 1973, that

the Executive Director develop and present a revised, and more functional organization staff structure. The Board established a Management-Consultant Committee as requested by the Executive Director, to advise with him when needed on matters of policy and administration. The new organizational plan was submitted and approved by the Board in July, 1973. The organizational structure set forth the activities of each staff member and responsibilities both in administrative and management areas.

The report also dealt in some depth with PSRO's, area designations, actions taken by the House of Delegates, and a status report of the Tennessee Foundation for Medical Care, Inc. The report also discussed the methods of financial management and conservation of funds, and the activity of the Executive Director in these operations. The preparation of the budget for consideration of the Finance Committee and adoption by the Board of Trustees, is prepared and presented by the Executive Director. It was also revealed that TMA's financial affairs are well managed by the Board.

A section of the Executive Director's report dealt with publication of the JOURNAL, its achievements, its features on continuing medical education, as well as the functions that the staff has in the publication of the JOURNAL. The report revealed that advertising revenues for 1973 were \$29,449.60, a \$356.88 decrease in revenue from 1972. The cost of printing and distributing the JOURNAL in 1973 totaled \$35,721.58, resulting in a direct cost loss above advertising income of \$6,271.90. Total direct and indirect cost of producing the JOURNAL in 1973 amounted to \$63,123.75. This figure includes overhead items allocated to the JOURNAL.

Exhibit income was up somewhat and the forecasts for 1974 were encouraging for exhibits.

Membership

In the area of membership services and benefits, the report detailed the many advantages afforded to TMA members. Membership increased in the year 1973. Active members of the Association totaled 3,749. Of this number, 241 were in a Dues Exempt status which includes veteran members (over age seventy), postgraduate and military members.

Total active members of the American Medical Association totaled 3,308. This is 89% of the TMA members. The increase in membership for 1973 over 1972 was a net gain of 154.

TMA continues to present popular travel tours. This activity has been highly acceptable by the membership. TMA's program now includes two tours per year, and the 1974 two-week tour will perhaps be the most popular one yet sponsored since it is to the countries of Switzerland, Germany and Austria.

The following are a few important activities which TMA has been involved with during the past year. In every instance, the Executive Director and the staff are fully involved with the administration and expediting of these activities. These are:

- (1) Fulfilled the mandate establishing the Tennessee Foundation for Medical Care, Inc. The Foundation is now in operation.
- (2) TMA financing of the continuing medical education program.
- (3) Took action to step up more frequent examinations in order to license more quickly physicians seeking to practice in Tennessee.
- (4) Sustained contact and cooperative effort with State and Federal legislators discussing problems of medical care.
- (5) Proceeded with fiscal conscientiousness in all activities in disbursements of Association funds.
- (6) Continued to utilize boldness, tact, diplomacy and force in conveying to government agencies, federal officials, third party carriers and others, of a clear understanding of what the practicing physician in Tennessee stands for and what they will not stand for.
- (7) Urged TMA's Delegates to AMA to meet regularly with the Board of Trustees at its quarterly meetings.
- (8) Further studied with representatives of the State Ophthalmology Society of the involvements with the Physician's Assistants bill.
- (9) Urged repeal of PSRO and supported H.B. 9375 introduced in the U.S. Congress by Congressman Rarick of Louisiana.
- (10) Adopted action to urge the TMA Committee on Blood Banks and Medical Laboratories to study the lack of incentives for replacing blood.
- (11) Took steps to assist county societies by presenting an application for exemption of all county medical societies under the Internal Revenue Code, the exemption to be included under the TMA exemption category.
- (12) Urged insurance coverage for private psychiatrists under Medicaid.
- (13) Opposed the formation of a State Department of Human Services.
- (14) Acted to seek information of how TMA can better support the State Medical Examiner in the Medico-Legal investigation of deaths.
- (15) Continued stepped up program to recruit physicians to locate practice in needy areas in Tennessee.
- (16) Continued to study and provide services and benefits to membership.

The Executive Director's report concluded with the statement that now is the time for leadership, and the staff intends to give its total efforts to support the leadership of this Association. The report ended with an expression of appreciation to the Officers, Board of Trustees, Committees, and the entire official family and membership of TMA for their help and the cooperation from the TMA staff.

THE REFERENCE COMMITTEE D—recommended the acceptance of the report and commended the Executive Director for his excellent work and the informative report.

THE HOUSE accepted the report.

COMMITTEE REPORTS

The following Standing and Special Committees made annual reports to the House of Delegates:

Committee on Scientific Affairs
 Committee on Legislation
 Liaison Committee to the Public Health Department
 Group Insurance Committee of the Tennessee Medical Association
 Committee on Constitution and By-Laws
 Committee on Hospitals
 Peer Review Committee
 Communications and Public Service Committee
 Interprofessional Liaison Committee
 Committee on Continuing Medical Education
 Rural Health Committee
 Committee on Hospital Accreditation
 Committee on Emergency Medical Services
 Committee on Occupational Health
 Committee on Blood Banks and Medical Laboratories
 Committee on Mental Health
 Committee on Medicine and Religion
 Committee on Rehabilitation
 Committee on Regional Medical Programs
 Liaison Committee to Medical Schools in Tennessee

Special Reports:

Report of the Editor of the JOURNAL of TMA
 President of the Woman's Auxiliary Report
 Report of the AMA Delegation
 Report of the Tennessee Medical Association-Student Education Fund
 Committee on Memoirs

Committees Not Reporting Were:
Committee on Governmental Medical Services
Committee on Mediation
Committee on Socio-Economics of Health Care
Committee on Environmental Health

Advisory Committee to the Woman's Auxiliary
Committee on Comprehensive Health Planning

Attest: J. E. BALLENTINE
Executive Director

*Abstract of the Minutes of the Meetings of the Board of
Trustees, Tennessee Medical Association —
Auditorium — Gatlinburg, Tennessee
April 10 and 13, 1974*

The Board of Trustees of the Tennessee Medical Association conducted two meetings during the Annual Meeting of the Association in Gatlinburg. The meetings were held at the Auditorium on Wednesday, April 10 and Saturday, April 13.

RESUME OF THE BOARD MEETING
OF APRIL 10, 1974

Members of the Board Present:

J. KELLEY AVERY, M.D., Union City, *Chairman*

THOMAS K. BALLARD, M.D., Jackson

E. KENT CARTER, M.D., Kingsport

JOHN K. DUCKWORTH, M.D., Memphis

ROBERT H. HARALSON, JR., M.D., Maryville

JAMES W. HAYS, M.D., Nashville, *Secretary-Treasurer*

NAT E. HYDER, JR., M.D., Erwin

EDWARD G. JOHNSON, M.D., Chattanooga, *Vice Chairman*

MORSE KOCHTITZKY, M.D., Nashville

WILLIAM T. SATTERFIELD, SR., M.D., Memphis

CHARLES B. THORNE, M.D., Nashville

OLIN O. WILLIAMS, M.D., Murfreesboro

GEORGE A. ZIRKLE, JR., M.D., Knoxville

Also attending were: WILLIAM H. EDWARDS, M.D., Nashville, Vice Speaker of the House of Delegates, MR. CHARLES L. CORNELIUS, JR., Nashville, TMA Attorney, WILLIAM D. TRIBBLE, Ph.D., Nashville, Acting Director, Tennessee Foundation for Medical Care, Inc., JOHN R. THOMPSON, JR., M.D., Jackson. Also present were members of the TMA staff.

(1) The appointments to the Standing and Special Committees of the TMA temporarily appointed at the January Board meeting, were finalized. (A list of the members of the Standing and Special Committees of TMA are on file in the headquarters office.)

(2) The Board confirmed actions of the Executive Committee and Finance Committee. (A copy of the Executive Committee and Finance Committee meeting actions became a part of the official Board transactions.)

(3) The Board designated members of the Trustees to attend the Reference Committee hearings for the purpose of serving as resource persons for information to the Reference Committees.

(4) There was lengthy discussion and study of the PSRO area designations. This included discussion dealing with the two designated PSRO areas for Tennessee, namely: Shelby County and the remainder of the State. The discussion dealt with representatives serving on Boards of the two designated PSRO areas.

(5) The Board studied and carefully reviewed the final annual audit of the fiscal affairs of the Association. The Finance Committee had previously studied the audit in depth. The Board approved the audit.

(6) The Trustees considered, and adopted the first quarter financial statement for TMA operations.

(7) The Trustees approved the report of the TMA-Student Education Fund Board. Recommendations were made to the TMA-SEF Board to consider scholarships, using the income from repayments of loans to make scholarship awards

to deserving medical students.

(8) The Trustees studied in depth the Health Project Contest sponsored by TMA and the Woman's Auxiliary. It was the opinion that this project had outlived its usefulness, and it was urged that the Communications and Public Service Committee give further study to a different type of activity to replace the Health Project Contest.

(9) Nominated Drs. Oscar M. McCallum, Henderson, and Nat E. Hyder, Jr., Erwin, as nominees to be considered for appointment on the American Board of Family Practice.

(10) Considered a recommendation from the Chief Medical Examiner of Tennessee, and recommended that this matter be referred to the Committee on Governmental Medical Services with a report to be made to the Board of Trustees in July.

(11) Heard a lengthy discussion and report from the Committee on Communications and Public Service. Adopted a motion that Mr. Alexander function as the Public Service Director on the TMA staff, working through the existing PR committees on the county level and to provide the Board and the committee with information as to how these programs may be functioning.

(12) Discussed new developments on the blood program and the National Blood Policy. This item was continued to the Saturday session of the Trustees.

(13) Considered a program through the Memphis-Shelby County Medical Society for the MED-HELP project. The outcome of the discussion was to recommend that a resolution on this project be submitted to the House of Delegates. (See Resolution No. 16-74)

(14) Heard a recommendation from the Travel Committee as to the tours that will be sponsored in 1974 and 1975 by TMA.

(15) Upon request of the Department of Public Health, the Board appointed Drs. Edward G. Johnson, Chattanooga, and Robert H. Haralson, Jr., Maryville, to serve on a State board pertaining to the requirement for conductive floors in the operating rooms and emergency rooms required by minimum standards and regulations for hospitals.

(16) Nominated Dr. Francis H. Cole, Memphis, to serve on the State's Health Facilities Commission for a term beginning July 1.

(17) Approved the use of the TMA mailing

lists for a statewide mailing to be made by the Knoxville Academy of Medicine.

RESUME OF THE BOARD MEETING OF APRIL 13, 1974

Members of the Board Present:

JAMES W. HAYS, M.D., Nashville, *Chairman*
ROBERT L. ALLEN, M.D., Cleveland
J. KELLEY AVERY, M.D., Union City
E. KENT CARTER, M.D., Kingsport
JOHN K. DUCKWORTH, M.D., Memphis
WILLIAM H. EDWARDS, M.D., Nashville
MARK P. FECHER, M.D., Knoxville
NAT E. HYDER, JR., M.D., Erwin, *Vice Chairman*
MORSE KOCHTITZKY, M.D., Nashville
OSCAR M. MCCALLUM, M.D., Henderson
CHARLES B. THORNE, M.D., Nashville, *Assistant Secretary-Treasurer*
OLIN O. WILLIAMS, M.D., Murfreesboro, *Secretary-Treasurer*

Drs. ALLEN S. EDMONDSON, Memphis, Vice Speaker of the House of Delegates, and EUGENE W. GADBERRY, Memphis, were not in attendance.

Others attending were: GEORGE A. ZIRKLE, JR., M.D., Knoxville, WILLIAM D. TRIBBLE, Ph.D., Acting Director, Tennessee Foundation for Medical Care, Inc., Nashville, MR. CHARLES L. CORNELIUS, JR., TMA Attorney, Nashville, and members of the TMA staff.

Dr. Carter, President, called the meeting to order and presided for the purpose of organizing the Board.

(1) The first action taken was the organization of the Board, and Dr. Hays was elected Chairman. Dr. Hyder was elected Vice Chairman. Dr. Williams was elected Secretary-Treasurer, and Dr. Thorne was elected Assistant Secretary-Treasurer.

As part of the Board organization, the Trustees named the Committees of the Board. These are: *Executive Committee*—Drs. James W. Hays, J. Kelley Avery, E. Kent Carter, Nat E. Hyder, Jr., Morse Kochtitzky, and Olin O. Williams; *Finance Committee*—Drs. Williams, Mark P. Fecher, and Charles B. Thorne; *Publications Committee*—Drs. Addison B. Scoville, Jr., Oscar M. McCallum, Harry A. Stone, and Clarence C. Woodcock; *Tennessee Committee for the AMA-ERF*—George A. Zirkle, Jr., Robert L. Chalfant, and Fenwick W. Chappell; *Memoirs Committee*—Dr. Phillip P. Porch; *Committee on Medical*

Licensure—Drs. Francis H. Cole, Avery, Fecher, Howard R. Foreman, Eugene W. Fowinkle, Kochtitzky, Tinnin Martin, Tom E. Nesbitt, C. Richard Treadway, Mr. Charles L. Cornelius, Jr., TMA Attorney, consultant, and Roland H. Alden, Ph.D., consultant; *Management-Consultant Committee to the Executive Director*—Drs. Carter, John K. Duckworth, Hays, and Kochtitzky; *Committee on Malpractice*—Drs. William T. Satterfield, Sr., William H. Edwards, Stone, and Woodcock.

(2) The Board appointed the Board of Directors of the Tennessee Medical Foundation, which are: Drs. Thomas K. Ballard, Thorne, Robert L. Allen, Duckworth, Edwards, Hyder, McCallum, Satterfield, and Williams.

(3) The Board appointed the Board of Directors of the Tennessee Foundation for Medical Care, Inc., which are: Drs. Kochtitzky, Zirkle, Thorne, Allen, Avery, Carter, Hays, Hyder, Williams, Appointee From Tennessee Osteopathic Association, Appointee From Volunteer State Medical Association, and Drs. Richard L. DeSaussure, Duckworth, McCallum, and John R. Thompson.

(4) The Board again discussed the TMA-Student Education Fund, and took further action endorsing the recommendation that the TMA-SEF use available interest money for scholarships up to \$1,000 per year, and that the award be made to deserving Tennessee students as determined by the Board of Directors of the Fund with a written agreement that the student, upon graduation, would practice a minimum of two years in an under-advantaged area of Tennessee as determined by the Tennessee Department of Public Health, such practice to begin no later than three years after graduation. The scholarship funds will be derived from the interest earned on the repayment of existing loans.

(5) The Board studied a lengthy matter dealing with the National Blood Policy, and ap-

proved the recommendations on the National Blood Policy as reviewed by the TMA Committee on Blood Banks and Medical Laboratories.

(6) A motion was made and adopted that the Trustees initiate a letter jointly with the President, to the Chairman and Committee on Rehabilitation, with the request that the Committee meet and examine the possibility of making the services of vocational rehabilitation equitably available throughout the state.

(7) The Board discussed in detail Resolution No. 10-74, separate billing. The Judicial Council was urged to prepare a pamphlet of appropriate issues that might be questionable in interpretation when a new physician in the state begins practicing, and further that the pamphlet be made available, if possible, through the State Licensing authority, to be given to each new physician taking the examination or coming into Tennessee through reciprocity. The resolution also called for informing all interns and residents in radiology, pathology and anesthesiology in regard to the policy of TMA on separate billing.

(8) Mr. Alexander was directed to contact representatives of the news media toward a workshop-type of meeting with TMA in order that frank discussions could take place and suggestions passed along to the Committee on Communications and Public Service.

(9) The Trustees directed the Chairman of the Board, who had met previously with members of the TMA staff and the Governor's Fuel Energy Allocation Committee, to appoint a special committee to work with the State in order to seek a program of priorities for physicians to obtain gasoline when the need arises. Representatives of metropolitan and rural areas will compose the committee, with representatives from the three grand divisions of the state.

JAMES W. HAYS, M.D., *Chairman*

J. E. BALLENTINE, *Executive Director*

*Abstract of the Minutes of the Meetings of the Judicial Council
Tennessee Medical Association
Gatlinburg, Tennessee
April 10 and 13, 1974*

The Councilors of the Tennessee Medical Association met at 1:00 P.M., in the Pioneer Room of the Gatlinburg Inn, on April 10, 1974, Dr. Harry Stone, Chairman, presided. Members of the Council present were: John O. Kennedy, M.D., Second District; Harry A. Stone, M.D., Third District; D. Gordon Petty, M.D., Fourth District; Clarence C. Woodcock, M.D., Sixth District; Kenneth J. Phelps, M.D., Seventh District; James H. Donnell, M.D., Eighth District; Robert E. Clendenin, M.D., Ninth District; and John B. Dorian, M.D., Tenth District.

The matter of obtaining annual reports required from county medical societies to the Council was discussed. The Councilors voted to challenge the Delegates of four county societies at the opening session of the House of Delegates.

Dr. Woodcock reported that a physician had been expelled by the Wilson County Medical Society.

Dr. Stone reported that Mr. Charles L. Cornelius, Jr., TMA Attorney, was researching the Tennessee Medical Practice Act for recommendations for amendments. The Chairman reported that he had written the AMA Judicial Council and the Joint Commission on Hospital Accreditation regarding assistance in enforcement of the Council stand on separate billing of hospital-based physicians. He had received a reply stating that this matter would be discussed by the AMA Judicial Council in June at the AMA Annual Meeting in Chicago.

Dr. Stone also presented the problem concerning neurosurgical coverage in upper East Tennessee. It was the view of the Councilors that this was a hospital staff problem which the respective medical staff should be involved in solving the matter.

The Councilors also discussed problems with nurse practitioners who have little or no medical supervision. The Council did not wish to take a position of opposition to the Nurse Practitioners Act, but strongly felt that more adequate supervision was necessary.

**SECOND MEETING OF THE
JUDICIAL COUNCIL**

The Council held its second session during the annual session of the Association at the close of the House of Delegates meeting on April 13, with its newly elected members in attendance.

Dr. Woodcock was elected Chairman. Dr. Stone was commended for his excellent leadership as Chairman during the past two years.

The timing of future quarterly meetings of the Council was discussed and agreed that Sundays would be the best day provided that the gasoline shortage situation made it possible to travel on Sundays; otherwise, a weekday meeting would be resorted to even though all members could not arrange to be present on some weekdays.

There being no further business, the Council adjourned until the July quarterly meeting.

* * *

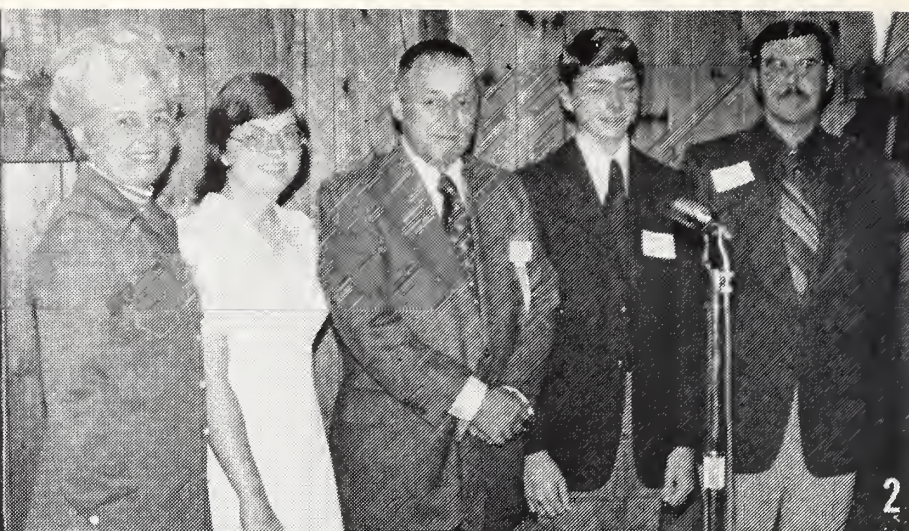
1974 TMA Annual Meeting—House of Delegates Composition

1st Session: April 10—2nd Session: April 13

EX-OFFICIO MEMBERS

		First Session	Second Session			First Session	Second Session
OFFICERS				SEVIER	Charles L. Roach	Present	Present
President	Morse Kochtitzky	Present	Present	SULLIVAN-JOHNSON	B. Y. Cowan	Present	Present
President-Elect	E. Kent Carter	Present	Present		Joseph K. Maloy	Present	Present
Vice-President	George R. Mayfield, Jr.	Present	Present		Hugh Rule	Present	Present
Vice-President	Charles L. Roach	Present	Present		Sidney A. Wike (Alt.)	Present	Present
Vice-President	A. Barnett Scott	Present	Present	WASHINGTON-			
Secretary-Treasurer	James W. Hays	Present	Present	CARTER-UNICOI	C. E. Allen	Present	Present
Speaker	Robert H. Haralson, Jr.	Present	Present		James J. Range	Present	Present
Vice-Speaker	Wm. H. Edwards	Present	Present		G. A. Rannick	Present	Present
ELECTED TRUSTEES					D. M. Sholes, Jr. (Alt.)	Present	Present
East Tennessee	Robert L. Allen		Present	MIDDLE TENNESSEE GRAND DIVISION			
East Tennessee	Mark P. Fecher	Present	Present	BEDFORD	Carl T. Stubblefield	Present	Present
West Tennessee	Eugene W. Gadberry			BENTON-			
West Tennessee	Oscar M. McCallum	Present	Present	HUMPHREYS			
AMA DELEGATES				BUFFALO			
Delegate to AMA	John H. Burkhardt	Present	Present	RIVER VALLEY	Parker D. Elrod	Present	Present
Delegate to AMA	Tom E. Nesbitt	Present	Present	COFFEE	James M. King	Present	Present
Delegate to AMA	A. Roy Tyrer, Jr.	Present	Present	NASHVILLE			
Delegate to AMA	Julian K. Welch, Jr.	Present	Present	ACADEMY	Ben J. Alper	Present	Present
PAST PRESIDENTS					George K. Carpenter, Jr.	Present	Present
Past President	Charles C. Trabue, IV	Present			W. M. Cocke	Present	Present
Past President	Francis H. Cole		Present		George W. Holcomb, Jr.	Present	Present
Past President	Tom E. Nesbitt	Present	Present		Horace T. Lavelly, Jr.	Present	Present
Past President	John H. Saffold	Present	Present		Malcolm R. Lewis	Present	Present
Past President	Wm. T. Satterfield, Sr.	Present	Present		I. Armistead Nelson	Present	Present
COUNCILORS					Ronald E. Overfield	Present	Present
First District	James H. Boles				Phillip P. Porch, Jr.	Present	Present
Second District	John O. Kennedy	Present	Present		Robert M. Roy	Present	Present
Third District	Harry A. Stone	Present	Present		Howard L. Salyer	Present	Present
Fourth District	David Gordon Petty				W. David Strayhorn, Jr.	Present	Present
Fifth District	Wm. D. Jones				W. O. Tirrill, III	Present	Present
Sixth District	Clarence C.				W. Carter Williams, Jr.	Present	Present
	Woodcock, Jr.	Present	Present		John K. Wright	Present	Present
Seventh District	Kenneth J. Phelps	Present	Present		Jack Kinnard (Alt.)	Present	Present
Eighth District	James H. Donnell	Present	Present		D. Bruce P'Pool, Jr.	Present	Present
Ninth District	Robert E. Clendenin, Jr.	Present	Present		(Alt.)		
Tenth District	John B. Dorian	Present	Present		Stephen Schillig (Alt.)	Present	
OTHERS					Frank W. Stevens	Present	
Commissioner,				DICKSON	Shannon Curtis		Present
Public Health	Eugene W. Fowinkle	Present		FENTRESS			
Commissioner,				FRANKLIN	Dewey W. Hood	Present	Present
Mental Health	C. Richard Treadway	Present		GILES			
AMA Judicial				JACKSON			
Council Member	Charles C. Smeltzer	Present	Present	LAWRENCE	Virgil H. Crowder, Jr.	Present	Present
AMA Constitution				LINCOLN	Anne U. Bolner	Present	Present
& By-Laws,				MACON			
Council Member	John H. Burkhardt	Present	Present	MARSHALL	Hoyt C. Harris	Present	Present
AMA House of				MAURY	Lawrence R. Nickell	Present	Present
Delegates,				MONTGOMERY	R. S. Lowe, Jr.	Present	Present
Speaker	Tom E. Nesbitt	Present	Present		T. J. Montgomery (Alt.)	Present	Present
AMA Medical				OVERTON			
Education				PUTNAM	James L. Breyer	Present	Present
Council Member	Bland W. Cannon				J. T. DeBerry (Alt.)	Present	Present
DELEGATES				ROBERTSON			
EAST TENNESSEE GRAND DIVISION				RUTHERFORD	Carl E. Adams	Present	Present
County Society					B. S. Davison		
BLOUNT	Jack S. Phelan	Present	Present	SMITH	Hugh E. Green	Present	
	H. Trent Vandergriff	Present	Present	SUMNER	Clarence R. Sanders	Present	Present
	James N. Proffitt (Alt.)	Present	Present		Lloyd T. Brown (Alt.)	Present	Present
BRADLEY	William Proffitt	Present		WARREN	T. L. Pedigo	Present	Present
CAMPBELL				WHITE			
CHATTANOOGA-				WILLIAMSON	Joseph L. Willoughby	Present	Present
HAMILTON	Charles H. Alper	Present		WILSON			
	I. Lee Arnold	Present	Present	WEST TENNESSEE GRAND DIVISION			
	Thomas L. Buttram	Present	Present	CONSOLIDATED	S. Lane Bicknell	Present	Present
	Paul E. Hawkins	Present	Present		James H. Donnell	Present	Present
	C. Windom Kimsey	Present	Present		Oscar M. McCallum	Present	Present
	Durwood L. Kirk				A. Barnett Scott	Present	Present
	David P. McCallie	Present			John D. Lay (Alt.)	Present	Present
	David H. Turner	Present	Present	HENRY			
	Billy J. Allen (Alt.)	Present	Present	MEMPHIS-			
	James R. Royal (Alt.)	Present	Present	SHELBY	J. Malcolm Aste		
COCKE					Howard A. Boone		
CUMBERLAND	Joe E. Burton	Present	Present		R. A. Calandruccio		
GREENE	C. D. Huffman	Present	Present		McCarthy DeMere	Present	
HAMBLE	C. C. Blake	Present	Present		Richard L. DeSaussure		
HAWKINS					Thomas G. Dorrity	Present	Present
KNOXVILLE					W. David Dunavant	Present	Present
ACADEMY	Mark P. Fecher	Present	Present		Hamel B. Eason	Present	Present
	Perry M. Huggin		Present		Wilford H. Gragg, Jr.		Present
	John O. Kennedy	Present	Present		C. Douglas Hawkes	Present	Present
	John E. Kesterson				Jean M. Hawkes	Present	Present
	Felix G. Line	Present	Present		Eugene W. Gadberry		
	William O. Miller	Present	Present		Tinnin Martin, Jr.		
	Ira S. Pierce	Present	Present		Raymond F. Mayer	Present	Present
	Richard L. Whittaker				B. G. Mitchell	Present	Present
	George H. Wood	Present	Present		J. D. Peeples, Jr.		Present
	John H. Bell (Alt.)	Present	Present		John D. Pigott		
	I. Reid Collmann (Alt.)	Present	Present		Huey H. Porter	Present	Present
McMINN	Robert G. Hewgley	Present	Present		Daniel J. Scott	Present	Present
	W. E. Foree, Jr. (Alt.)	Present	Present		J. B. Witherington	Present	Present
MONROE	James L. Allen	Present	Present		Boyer M. Brady (Alt.)	Present	Present
ROANE-ANDERSON	E. Elliott Kaebnick	Present	Present		Hollis H. Halford (Alt.)	Present	Present
	Joe E. Tittle	Present	Present		Phillip A. Pedigo (Alt.)	Present	Present
	Raymond A. Johnson	Present	Present	NORTHWEST			
	(Alt.)			ACADEMY	Arden J. Butler, Jr.	Present	Present
SCOTT				TIPTON	R. L. Harrington	Present	Present

The information in the Roll Call was taken from the attendance record cards signed by the Delegates during the meetings of the House, April 10 and 13.



ANNUAL MEETING HIGHLIGHTS



1) Dr. Robert B. Hunter—AMA Board of Trustees keynoting General Session; 2) Dr. E. Kent Carter (center), President-elect, with Annual Health Project Contest Winners; 3) House of Delegates in session; 4) Dr. J. Kelley Avery, Chairman, TMA Board of Trustees presenting Distinguished Service Award to Dr. Thomas F. Frist; 5) Medicine and Religion Breakfast guest speaker, Dr. Robert Hingson (center), with Dr. I. Lee Arnold (left), TMA Medicine and Religion

Chairman and Mr. Arne Larson (right), AMA Department, Medicine and Religion; 6) Dr. Nat Winston—Guest Speaker, IMPACT Breakfast; 7) Dr. E. Kent Carter (left), President-elect, receives gavel from Dr. Morse Kochtitzky (right), outgoing President; and 8) Dr. Robert E. Richie (left), and Dr. Stephen Schillig (right) accepting Distinguished Service Award from Dr. J. Kelley Avery.

**from the
executive
director**

J. E. BALLENTINE

MEDICAL DIGEST

NEWS OF INTEREST TO DOCTORS IN TENNESSEE

HOUSE OF DELEGATES SUMMARY OF ACTIONS

ATTENDANCE 835 AT 1974 ANNUAL MEETING . . . Despite concern for gasoline availability, and the fact that the meeting was immediately before Easter, total physician registration in Gatlinburg, April 10-13, resulted in 536 physicians in attendance, including 127 Delegates and Ex-Officio Delegates to the House, and 50 guest physicians, for a total of 536 Doctors of Medicine . . . Others attending were 28 guests other than Doctors of Medicine, 136 exhibitors, and 135 members of the Woman's Auxiliary to TMA bringing the total attendance to 835 . . . Physician attendance revealed a decrease of less than 100 over the previous year.

* * * * *

FIVE TENNESSEE PHYSICIANS HONORED WITH AWARDS . . . Robert P. Ball, M.D., Oak Ridge, was elected by the House of Delegates to receive the 1974 Outstanding Physician of the Year Award. The Board of Trustees presented three "Distinguished Service Awards," one of which contained a joint presentation to two physicians. Awards are made to members who have made eminent contributions to the public welfare or to the advancement of medical science, service to the Association and contributions to the medical profession . . . Receiving Distinguished Service Awards were Thomas F. Frist, Sr., M.D., Nashville; William G. Crook, M.D., Jackson; and a joint award to Robert E. Richie, M.D., and Stephen Schillig, M.D., Nashville.

* * * * *

HOUSE OF DELEGATES . . . TMA's major policy making body, the House of Delegates, held its annual session at the Gatlinburg Auditorium on April 10 and 13 . . . 127 Delegates representing medical societies from all portions of the State were in attendance . . . In major items of interest, the House of Delegates took the following action on sixteen resolutions:

--Adopted a resolution wherein the House invited and will encourage attendance and participation in its sessions of a representative from the student body of each of the three medical schools in Tennessee. Such representative will be seated in the House as a Student Delegate with the rights and privileges of other Delegates except the right to vote.

--Adopted a resolution on peer review of HMO's wherein all HMO medical activities be subject to the same review and quality controls.

--Adopted a resolution endorsing the use of 1973 AMA uniform insurance claim form, and called for the Insurance Commissioner of Tennessee to institute use of the form throughout the State, and appropriate Federal administrators be requested to use the form throughout Federal agencies.

--Referred a resolution contained in a joint statement on an expanded

role of the professional nurse in health care delivery, and sent it back to the Interprofessional Liaison Committee for study.

--Recommended that the TMA Legislative Committee seek changes in the current statute to give the Board of Medical Examiners a mechanism to investigate and make recommendations concerning action against the errant physician, through the Licensing Board for the Healing Arts.

--Rejected a resolution for direct election of TMA Alternates and Delegates to the AMA.

--Rejected a resolution calling for TMA and the Tennessee Foundation for Medical Care, Inc., to take no action under Public Law 92-603 (PSRO).

--Adopted the following resolution on PSRO as the current position of Tennessee: (1) Working to effect repeal of the Professional Standards Review Organization, and (2) Lending its cooperation in the implementation of the Law until repeal in order that in the interim, the administration of these provisions will remain under physician control, and (3) It is in the best interest of patients and the profession to seek appropriate modifications of Section 249F of Public Law 92-603 (PSRO) to effect elimination of the identifiable deleterious effects of this law.

--Rejected a resolution calling for repeal of Section 249F, Public Law 92-603 (PSRO).

--Adopted a resolution that modified TMA's position on the definition of separate billing. The new guidelines are to apply to all physicians. Separate billing is defined as any billing method that:

- (1) Identifies the physician(s) who rendered services,
- (2) Identifies fee(s) charged by the physician(s) for said services as line items separate from other charges appearing on the same bill,
- (3) Clearly states that the billing agent (hospital or other) is billing for the physician(s) at his request and on his instruction.
- (4) That residents in training programs be informed of the position of TMA regarding separate billing.

--Adopted a resolution on Medicare and Medicaid billing that when a charge for services made by a physician is less than the allowable charge, that the billing statement shall indicate such and the patient be informed, and that the TMA notify the proper Medicare and Medicaid official.

--Adopted a resolution for the establishment of qualified health field training programs at the smaller community level.

--Adopted a resolution for a program on continuing education for nursing.

--Adopted action on Emergency Medical Services Act stating it is for the public good, and that the legislation passed to modify it must pass close scrutiny, and recommended that TMA adopt the same position and so publicly state.

--Adopted a resolution concerning highway safety, calling for a strong law to be enacted by the State Legislature.

--Adopted the "MED-HELP" Program--a medical information service for the public.

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1974-75 OFFICERS ELECTED . . . Installed E. Kent Carter, M.D., Kingsport, as President; J. Kelley Avery, M.D., Union City, President-Elect; William H. Edwards, M.D., Nashville, Speaker of the House of Delegates; Allen S. Edmondson, M.D., Memphis, Vice Speaker of the House of Delegates; Vice Presidents: (Middle Tennessee) Kenneth J. Phelps, M.D., Lewisburg, (East Tennessee) Carroll H. Long, M.D., Johnson City, (West Tennessee) Hugh Francis, Jr., M.D., Memphis; Olin O. Williams, M.D., Murfreesboro, Secretary-Treasurer; James W. Hays, M.D., Nashville, was selected by the Board of Trustees to be Chairman of the Board.

**public
service**



COMMUNICATIONS • LEGISLATION

HADLEY WILLIAMS, ASSISTANT EXECUTIVE DIRECTOR

LEGISLATIVE COMMITTEE VISITS WASHINGTON . . . The TMA Legislative Committee made its annual visit to Washington May 21-22 to meet with Tennessee's Congressional Delegation. The trip marked the 13th consecutive year the Committee has visited the Nation's Capitol. A total of 24 physicians and staff composed the group that hosted a Tennessee Country Ham Breakfast in a private Dining Room of the new Rayburn Building. Both of Tennessee's Senators were present as were all eight members of the House of Representatives. The TMA delegation spent the day visiting with the individual members of Congress in their offices and some managed to attend committee meetings and sessions of the House and Senate. A briefing conducted by the Washington office of the American Medical Association was held the evening before where a complete run-down on all major Health issues were outlined, explained and discussed at length. The TMA group consisted of Drs. Nat E. Hyder, Jr. of Erwin; John H. Burkhart, John T. Purvis and William O. Miller of Knoxville; David H. Turner, Thomas L. Buttram and I. Lee Arnold of Chattanooga; D. Gordon Petty of Carthage; Maurice M. Acree, Morse Kochtitzky and David R. Pickens of Nashville; George R. Mayfield, Jr. of Columbia; Thomas K. Ballard of Jackson; A. Roy Tyrer, Jr., Huey H. Porter, McCarthy DeMere and Wilford H. Gragg, Jr. of Memphis; E. Kent Carter of Kingsport, TMA President; J. Kelley Avery of Union City, TMA President-Elect; Olin O. Williams of Murfreesboro, TMA Secretary-Treasurer and C. Richard Treadway of Nashville, Commissioner-Tennessee Department of Mental Health. TMA staff in attendance were Mr. Jack Ballentine, TMA Executive Director; Mr. Hadley Williams, TMA Assistant Executive Director and Mr. John Coles, TMA Executive Assistant for Legislation.

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EDUCATION COSTS CONTINUE TO RISE . . . The National Academy of Sciences' Institute of Medicine has completed an 18-month study of the average annual costs of educating a physician plus seven other health professions. The study found that the average is \$12,650 per student in medical school, \$8,950 in osteopathy, \$9,050 in dentistry and \$1,650 in associate degree nursing programs.

* * * * *

GLAUCOMA TESTS FOR ALL EYE PATIENTS? . . . Mandatory testing for glaucoma may be required for all eye patients regardless of age in Washington state, following a recent Washington Supreme Court ruling. In the decision, two ophthalmologists were found negligent for not testing for glaucoma in a woman under 40 who had been treated for eye problems for nine years. Although expert witnesses established that the standards of the specialty in the same or similar circumstances do not require routine glaucoma tests on patients under 40, the Supreme Court's decision reversed the trial court and the Court of Appeal and called for a new trial. AMA's legal counsel said the ruling might be used as a precedent by other states.

in Brief

A summary of AMA, medical & health news

American Medical Association / 535 North Dearborn Street / Chicago, Illinois 60610 / Phone (312) 751-6000 / TWX 910-221-0300

AMA's contract for Project USA has been renewed until June 30, 1975. The project places physicians to serve as short-term replacements for National Health Service Corps physicians in areas of critical medical personnel shortages. Under the new contract, the AMA will also recruit physicians for long-term assignments in the NHSC. Physicians receiving long-term assignments will be government employees, either members of the Commissioned Corps of the Public Health Service or Civil Service. Project USA physicians will be reimbursed by the AMA.

Three specialty societies have released "Mini-CPT" editions. The booklets are published cooperatively by the AMA and the specialty societies, with the societies paying for printing and distributing their editions to their memberships without charge. Each edition is taken from a specific section of the third edition of AMA's *Current Procedural Terminology*. So far, the American Society of Internal Medicine has published *Procedural Terminology for Internists*; the American Academy of Pediatrics, *Procedural Terminology for Pediatricians*; and the American Academy of Neurology, *Procedural Terminology for Neurologists*. The American Assn. of Ophthalmology and other societies are expected to do so soon. The AMA carries no inventory of these items and individual specialty societies should be contacted for copies.

Physicians registering and participating in the American Society of Clinical Pathologists' post-graduate courses at the AMA's Annual Convention in Chicago in June will not have to pay AMA registration fees. ASCAP is offering seven pathology courses for non-pathologists during the mornings of June 22-26 at the ASCAP Continuing Education Center in Chicago. Shuttle bus service will be provided to and from the center by the AMA.

Loans totalling \$4,146,523 were granted by the AMA-ERF Loan Guarantee Program in 1973. The 3,097 loans granted averaged \$1,338 each. Since the program began in 1962, 51,797 loans for \$59,481,298 have been granted to medical students, interns and residents.

U.S. Vice President Gerald R. Ford will address the AMA House of Delegates on June 25 at the Annual Convention in Chicago.

About 200 physicians were placed last year through the AMA's Physicians' Placement Service. The PPS will have an exhibit at the AMA's Annual Convention in Chicago in June, where more than 2,000 physician resumes will be available to those seeking partners or associates. The placement service is free and those interested in having their resumes circulated at the exhibit are urged to write early for registration forms. Contact Physicians' Placement Service, AMA Headquarters.

Human health, as it relates to energy and the environment, is the subject of a new book published by the Publishing Sciences Group, Inc., in cooperation with the AMA Council on Environmental, Occupational, and Public Health. *Energy, the Environment, and Human Health* is available for \$18.75 from Publishing Sciences Group, Inc., 411 Massachusetts Ave., Acton, Mass. 01720.

The first PSRO contract was granted to the Pennsylvania Medical Care Foundation, organized in 1971 by the Pennsylvania Medical Society. The 12-month contract provides about \$250,000 for the development and operation of a statewide support center.

Available from AMA: *Distribution of Physicians in the U.S., 1972*, a two-volume guide to geographic distribution of medical practice in the U.S. and its possessions. To obtain OP-336, send \$10 to Order Dept., AMA Headquarters... *Federation Eavesdrop*, an audiovisual presentation, discusses the need for unity in the federation. Medical and specialty societies, write Dept. of Field Services, AMA Headquarters, for use... *Medicine's Stake in the Medical Staff Organizational Crisis*, an audio-visual presentation on the current trends in the relationships of hospital medical staffs, governing boards and administration. Write Division of Medical Practice, AMA Headquarters.



**special
item**

**TMA BOARD OF TRUSTEES
AND
TMA COMMITTEE ON BLOOD BANKS &
MEDICAL LABORATORIES**

**Recommendations and Observations on National
Blood Policy***

RECOMMENDATIONS

1. Strongly supports organization (Alternate one)—Alternate two is not recommended. (Alternate two is not reprinted below.—Ed.)
2. A blood replacement fee is essential to serve as an inducement in securing blood donors and should not be eliminated at this time.
3. In defining regional program areas, the regional areas will necessarily have to include a sufficiently large population group so as to warrant the establishment of sophisticated blood bank services (such as cryoprecipitates platelets and blood components); yet be sufficiently small in geographic proportions so as to minimize transportation costs; problems of logistics; and so as to take maximal opportunity for local medical control.
4. The transfusion recipient will necessarily have to bear all costs (not covered by philanthropy) of operating a blood bank, such as:
 - a. Donor recruitment
 - b. Education of blood bank technicians, technologists, and professionals
 - c. Transfusions for indigents
 - d. Transportation costs
 - e. Collection and processing costs of donors
 - f. Overhead costs
 - g. Cost of professional direction
 - h. Service charges for crossmatching, antibody identification and related costs.
5. TMA has a role to play in rural and sparsely populated areas in helping define and set up regional program areas. Regional centers will necessarily have to cut across state lines in many instances in Tennessee.

OBSERVATIONS

1. It is an observation by the physicians in Tennessee that in those areas of Tennessee where the American Red Cross has served as an organization for supplying blood to local blood banks that:

Performance by the ARC in supplying blood to blood banks and to patients has in some areas been favorable; while in many other areas of Tennessee the performance of the ARC has been extremely unfavorable.

2. If the National Blood Policy is going to succeed, it must have the understanding, commitment and involvement of the membership of TMA. It is recommended that the National Blood Policy be reprinted in an early issue of the TMA JOURNAL along with the

report of this Committee and endorsement of the Board.

April 13, 1974

**DEPARTMENT OF HEALTH,
EDUCATION, AND WELFARE**

Office of the Secretary

NATIONAL BLOOD POLICY

The Department of Health, Education, and Welfare has received from the private sector a proposed plan to implement the National Blood Policy. Notice is hereby given that the Department is soliciting public comments on this implementation plan, which was submitted on January 31, 1974. This plan constitutes a draft proposal by the private sector and has not been endorsed in any way by the Federal Government.

BACKGROUND

On July 10, 1973, the Secretary of Health, Education, and Welfare announced the National Blood Policy. A full statement of the Policy will be found at the end of this *Federal Register* notice. The Policy identified and articulated four goals in the development of an improved blood service system:

1. *Supply*. A supply of blood and blood products adequate to meet all of the treatment and diagnostic needs of the population of this country.

2. *Quality*. Attainment of the highest standard of blood transfusion therapy through full application of currently available scientific knowledge, as well as through advancement of the scientific base.

3. *Accessibility*. Access to the national supply of blood and blood products by everyone in need, regardless of economic status.

4. *Efficiency*. Efficient collection, processing, storage, and utilization of the national supply of blood and blood products.

To achieve these goals, the Policy called for the attainment of specific improvements in the conduct of blood banking. Prominent among these are regionalization of blood collection and distribution, transition to an all-voluntary blood donation system, and the rational alignment of charges and costs for blood services.

On September 24, 1973, at the first Conference on the Implementation of the National Blood Policy, Secretary Weinberger called upon the existing entities involved in providing blood services, including blood banking organizations, medical and hospital professional groups, health insurance organizations, and consumer groups, to undertake an intensive and concerted effort to produce a plan for implementing the operational aspects of the National Blood Policy. It was clearly stated that, if possible, the Department thought it most desirable to leave responsibility for the day-to-day conduct of blood banking and operational management in the hands of the private sector, by which is meant the entire array of non-governmental organizations and agencies concerned with the provision of blood services.

Over a period of four months, representatives of the private sector organizations worked to develop an

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implementation plan. In recognition of the need to create a single locus of accountability in blood banking, it was agreed that the American Medical Association would take the lead in bringing together the various interested organizations to prepare a unified plan that would appropriately involve all segments of the blood banking sector, and the Nation's people in general, in implementing the National Blood Policy.

In response to the Secretary's charge, an implementation plan was submitted to the Department on January 31, 1974, proposing the creation of an American Blood Commission. This proposed plan emerged from the efforts of the following organizations: American Medical Association, American Association of Blood Banks, American National Red Cross, Council of Community Blood Centers, American Hospital Association, American Society of Clinical Pathologists, and College of American Pathologists.

It remains now for the Department to determine whether the American Blood Commission Plan is adequate to the task of implementing the National Blood Policy. In arriving at its decision, the Department is seeking comments and input from as wide a spectrum of the public as possible. Accordingly, the Department is taking two steps.

IMPLEMENTATION PLAN AMERICAN BLOOD COMMISSION

Membership in the American Blood Commission will be open to national organizations that have an interest and concern for the blood services provided to the American people. To achieve the goals of the National Blood Policy wide participation is needed and the following organizations, selected to suggest a wide range of bodies, and others are, therefore, called upon to join in this endeavor:

The Advertising Council
The American Association of Blood Banks
The American Blood Resources Association
The American College of Physicians
The American Federation of Labor—Council of Industrial Organizations
The American Hospital Association
The American Medical Association
The American National Red Cross
The American Public Health Association
The American Society for Medical Technology
The American Society of Clinical Pathologists
The American Society of Internal Medicine
The Blue Cross Association
The College of American Pathologists
The Consumer Federation of America
The Council of Community Blood Centers
The Health Insurance Council
Independent National Labor Organizations
The National Academy of Sciences
The National Research Council
The National Association of Blue Shield Plans
The National Association of Manufacturers
The National Council of Churches
The National Health Council
The National Hemophilia Foundation
The National Medical Association

The Pharmaceutical Manufacturers Association
The United States Chamber of Commerce

Other interested organizations are welcome.

No governmental agencies are among those listed above only because there may be legislative or administrative restrictions on their participation; however, the Veteran's Administration, the Public Health Service, the military services, the Food and Drug Administration and other agencies are welcome.

The American Blood Commission Executive Committee will proceed toward fulfilling the National Blood Policy through the plan presented here and will appoint Commission task forces that will directly address themselves to the problems and mechanics of the implementation as the new regional system become operative. The task forces will be expected to monitor progress and identify problems and to advise the Executive Committee of the Commission regarding modifications of the implementation plan that experience may indicate to be appropriate.

Some suggested task forces follow; however, the list is not all inclusive and a need for additional task forces dealing with other major areas, such as hepatitis surveillance, may be determined by the Commission or its Executive Committee.

INITIAL TASK FORCES

Voluntary Donor Recruitment
Blood Utilization
Blood Inventory Control
Data and Statistical Analysis
Standards
Inspection and Accreditation
Cost Evaluation and Control
Plasma Production and Fractionation
Regional Program Development
Research
Education

The Executive Committee will appoint task force members who have special expertise or interest in the areas being studied. While most task force members will be members of organizations that are part of the American Blood Commission, membership will not be a requirement of service. No honoraria will be paid to any task force member by the American Blood Commission.

The following responsibilities are to be discharged by the Commission at an annual meeting:

1. Election of the seventeen (17) members of the Executive Committee in accordance with the proportional representation presented earlier in this document.
2. The development of policy recommendations to help guide the Executive Committee.
3. The review of the performance of the Executive Committee with regard to progress toward the goals of the National Blood Policy.
4. The review of the budget adopted by the Executive Committee.

REGIONALIZATION

An organization of voluntary non-profit blood banks and transfusion services that collectively can provide a full range of services will be officially designated as an

Integrated Regional Program if it can substantially meet the following performance criteria:

1. Accept the responsibility for recruiting volunteer donors in the region.
2. Include at least one facility that is licensed to ship blood over state lines.
3. Provide for total blood service within its area on a schedule in keeping with the needs of the region.
4. Have the capacity to provide expert medical consultation on hemotherapy, compatibility problems and other blood related problems whenever needed.
5. Provide the range and quality of blood components required in the region.
6. Meet current appropriate inspection and accreditation standards.

In local areas served by several blood banks the Integrated Regional Program will encompass all the blood services in the area, including transfusion services. Physicians and directors of the area blood banks should exert leadership in the establishment of an organization that can provide the services deemed necessary to the successful administration of an integrated program. The blood banks and the hospital services that will be served by these larger programs must be invited to participate as they would be in an area served by a single blood bank.

Each Regional Program will organize to provide quality services to the transfusion facilities in its area, recruit donors, and keep records on blood drawn and on adverse reactions. Hospital transfusion facilities receiving blood would keep inventory records, report to the Regional Program on transfusion reactions, and may be requested to draw blood if needed within the system. General policy for the national system will be recommended by the American Blood Commission and established by the Executive Committee, but most operating policies will be determined at the regional level. The plan is conceived of as being self-supporting.

ORGANIZATION (ALTERNATE 1)

Interested individuals wishing to organize a blood program, in order to qualify for nomination as an Integrated Regional Program, will request a letter of intent to associate with the proposed Regional Program from each of the blood banks and the transfusion facilities that would be served. At the same time, the director of each of the blood banks and the hospital transfusion facilities will be invited to participate in the selection of a board to govern the activities of the new Regional Program. The hospitals' responses and the organizer's own letter of intent to lead an Integrated Regional Program will be filed with the medical society in the county and with the society(s) in the county(s) where the hospital blood facilities are located, or with the state medical society if it is the appropriate body in the area.

Nomination of an Integrated Regional Program will be a responsibility of the medical society, blood bank and hospital transfusion service directors, and lay leaders in the area in which a Program is located; all three groups will have continuing interest in the performance

of the Regional Program. If the three representative groups are satisfied that the Program substantially meets the criteria, the Integrated Regional Program will be nominated for designation by the Executive Committee of the American Blood Commission. Copies of the letters of intent and a letter of nomination will be forwarded by the medical society to the American Blood Commission's Executive Committee. Upon designation, the American Blood Commission's Task Force on Regionalization will produce the initial national directory of Integrated Regional Blood Programs, organized by region to document the new system.

Should the local representative groups decide against nominating a particular interested organization to serve as a Regional Program, the decision may be appealed directly to the Executive Committee of the American Blood Commission; however, the local nominating authorities must be invited to present their views on the questioned organization at any such appeal.

If any designated Program fails to serve its system satisfactorily, the hospital transfusion services in the Program's system may petition for the nomination of another coordinating Program.

OPERATION

This plan, while voluntary, is aimed at all blood facilities, private and public. The blood facilities maintained by the military establishment, the Veterans Administration, and the National Institutes of Health should be integrated into the civil system to the degree possible with due regard to their assigned missions. These public programs are important resources.

The American Blood Commission believes it is essential that the implementation of this plan be voluntary. It must be the responsibility of the leaders of a designated Regional Program to persuade the constituent users in the region of the benefits of the system; the designation of a Regional Program should be contingent on the willingness of the proposed Program to accept that responsibility. While it will be extremely difficult for most facilities to exist completely outside the system(s), the American Blood Commission recognizes that some will want to try. The performance of the system and the necessity of dealing with the Regional Programs to get blood into and out of the system should be ample persuasion to these facilities; however members of the American Blood Commission will urge all blood service facilities to become part of the system. Physicians may be concerned about the use of blood from outside the system.

DONOR RECRUITING

A designated Regional Program will plan and coordinate all blood drawing in the facilities it serves. It is the Program's responsibility to assure that members of the community can donate blood without undue travel or other inconveniences; it is the responsibility of a hospital service to cooperate by making its staff and facilities available as needed in an agreed upon program.

The expense of donor recruiting should be included as part of the charge to every patient receiving blood banks services. The charges should be high enough to

provide an appropriate budget for recruiting activities. If a regional system is not large enough to support adequate recruiting activities, it should merge with another system. A community that is able to meet its blood needs with little promotional effort will receive blood at less expense than a more apathetic community that requires high expenditures for recruiting. All recruiting fees collected by hospitals should be utilized in recruiting efforts coordinated with the Regional Program that will be responsible for donor motivation in the area.

Efforts to recruit volunteer donors must be centrally coordinated in a geographic area and not competitive between systems. Every organization endorsing the goals of the National Blood Policy should use its influence to encourage this concept.

A non-replacement fee may be needed to maintain adequate supplies of blood within a regional system. Such fees are acceptable if a local need is agreed upon by the majority of the hospital facilities being served by the Integrated Regional Program. However, the need for a non-replacement fee should be studied carefully.

REGIONAL GOVERNING BOARD

Because a Regional Program will be making decisions that affect the supply of blood available for transfusion to the community, that control the inventory of blood in facilities for which others have more direct responsibility, and that result in the expenditures of funds, intended for donor recruiting and other services in the entire region, it is imperative that a panel of lay leaders be selected to serve on the board governing the Program's activities along with representative directors of the transfusion services and blood banks, and physicians in the region. These three categories of board members should be represented in equal numbers on the governing board of the Program.

SUPPLY

The American Blood Commission will accept no compromise of the present blood supply. No advantage is to be gained if supplies of blood and blood components are reduced in the process of reorganization. Adequate time must be allowed for this implementation to develop in an orderly manner. The Commission has no interest in an "appearance" of activity; the reorganization must be built on the strength of the present system within a time frame which will allow the system to respond with a minimum of disruption.

HEMOPHILIA AND OTHER CHRONIC BLOOD DISORDERS

The Bureau of Biologics or the National Institute of Health or the Social Security Administration should establish a substantial and continuing program budget to take advantage of the national media for the purpose of recruiting blood donors and to help assure the blood needs of hemophiliacs and others with chronic diseases requiring blood.

The American Blood Commission is aware that many details are left here unresolved. While more organization likely will improve the quality of blood services, pluralism and local control are strengths of the present

blood service worth keeping. The different traditions, motivations, and state laws in the various parts of the country require allowances for local solutions. The American Blood Commission has confidence that blood banks, transfusion services, medicine and the citizenry that must provide the volunteer blood will respond appropriately to this call for action.

NATIONAL BLOOD POLICY

Blood transfusion and other forms of blood-based therapy are appropriately regarded as the earliest and presently most highly developed aspect of human tissue transplantation. This policy is directed exclusively to problems of the blood supply, processing and distribution system, and the use of blood. Its basic principles, however, though not necessarily the specific details, are appropriate to a broader system which must soon be developed to encompass all transplantable human tissues.

The Federal Government recognizes four principal goals in the provision of blood services:

1. *Supply.* A supply of blood and blood products adequate to meet all of the treatment and diagnostic needs of the population of this country.

2. *Quality.* Attainment of the highest standards of blood transfusion therapy through full application of currently available scientific knowledge, as well as through advancement of the scientific base.

3. *Accessibility.* Access to the national supply of blood and blood products by everyone in need, regardless of economic status.

4. *Efficiency.* Efficient collection, processing, storage, and utilization of the national supply of blood and blood products.

Recognizing the eminent desirability of each of these goals, it is the policy of the United States Government:

- (1) *To encourage, foster, and support efforts designed to bring into being an all-voluntary blood donation system and to eliminate commercialism in the acquisition of whole blood and blood components for transfusion purposes.* The ultimate aims of this policy are improvement in the quality of the supply of blood and blood products and development of an appropriate ethical climate for the increasing use of human tissues for therapeutic medical purposes. In this context, the term commercialism applies to the relationship between the donor and the blood bank and focuses primarily on those commercial relationships which have encouraged reliance on blood from sectors of society in which transmissible hepatitis is particularly prevalent. Although this policy seeks an end to the practice of purchasing whole blood and blood components from donors, it is not intended to preclude special arrangements where very rare blood or blood components are needed on an individual basis and can be obtained only by special consideration for unique donors who have been carefully evaluated. This policy does not attempt to eliminate reasonable charges for the service aspects of providing blood, blood products, and other tissues.

- (2) *To encourage, foster, and support establishment of a system for the collection and analysis of all relevant information concerning plasmapheresis operations and plasma fractionation operations and the flow of plasma and plasma products within the United States and other*

countries. Such information is needed to determine the sufficiency of domestic sources of plasma fractions. It would also aid in development of future positions on the relationship which plasmapheresis and plasma fractionation activities should bear to whole blood banking operations, and the degree of interdependence that should exist between the United States and other countries with respect to plasma and plasma products.

(3) *To encourage, foster, and support development of data and information collection and processing systems which will identify and describe all elements and functions in the blood banking sphere on a continuing basis.* This is necessary to acquire fundamental information on the nature and transmission of diseases by blood and blood products and the occurrence of transfusion mishaps, as well as to design and create changes which will enhance the effectiveness of the blood banking system.

(4) *To encourage, foster, and support measures to enhance resource-sharing and area-wide cooperation in the collection, processing, distribution, and utilization of blood, in order to make the most effective use of the national supply.*

(5) *To assure ample donation of blood and plasma:*

(a) *By encouraging, fostering, and supporting activities to develop accounting and reporting systems which identify the relationships between the costs and charges for all services and materials associated with transfusion therapy.* Public confidence in the reasonableness of service charges will encourage voluntary donors.

(b) *By encouraging, fostering, and supporting a variety of programs to educate both the public and the health professionals in their responsibilities for assuring adequate voluntary donations.* Those responsible for conducting recruitment programs must recognize the preeminent role of the voluntary donor and must develop and utilize various approaches appealing to appropriate sectors of society.

(6) *To encourage, foster, and support a variety of educational and other programs for health professionals to assure the most appropriate and safe use of blood and blood products.*

(7) *To employ the full regulatory authorities now vested in the Federal Government and to seek such additional authority as may be necessary and appropriate for the purpose of assuring uniform adherence to the highest attainable standards of practice in blood banking, including plasmapheresis and plasma fractionation.*

(8) *To encourage, foster, and support applied and fundamental research to improve application of existing information and simultaneously extend the scientific base with respect to the entire spectrum of blood banking and blood therapy activities, with emphasis on better characterization of human blood and blood products, identification and control of the diseases which may be transmitted by blood or blood products, extension of the shelf life of blood and blood products, more efficient utilization of these precious tissue resources through systems analysis and other management approaches, and with respect to other relevant matters as they may be identified.*

(9) *To include a benefit under National Health Insurance for the service aspects of providing and transfusing blood and blood products, and to encourage in-*

clusion of a comparable benefit under all governmental and non-governmental health care insurance programs in order to assure access to blood and blood products by everyone in need, regardless of economic status. This policy recognizes a distinction with respect to service aspects between blood and blood components on the one hand, and plasma derivatives on the other. For blood and blood components, the term service aspects includes all services involved in making the products available to the patient, from the recruitment of voluntary donors, through processing, storage, and distribution, to cross-matching and administration, but excludes charge for the product itself (such as charges associated with commercial acquisition of whole blood) which are unrelated to services rendered the patient. For plasma derivatives, the term "service aspects" includes cost of commercial plasma acquisition in recognition that commercial acquisition may still be necessary.

(10) *To identify the Secretary of the Department of Health, Education, and Welfare, or his designee, as responsible for the implementation of the policies enunciated above.* These policies are intended to achieve certain goals but do not detail methods of implementation. In developing the most effective and suitable means of reaching these goals, the Secretary will involve, as appropriate, all relevant public and private sectors and Federal Government agencies in a cooperative effort to provide the best attainable blood services. Designation of the Secretary of HEW in this role is a reflection of the Department's extensive resources and expertise related to blood; it is not to abridge the independent authority of any other Federal agency. Although the implementation of the National Blood Policy should build, wherever possible, on existing strengths in the present system to assure continuity of essential services, this intent is not to be interpreted as a mandate to maintain the status quo. It is to allow gradual evolution to the most effective organization and operation of the Blood Service Complex without interruption of services now provided. However, if the private sector is unable to make satisfactory progress toward implementing these policies, a legislative and/or regulatory approach would have to be considered.

The following issues are to be examined critically in implementing these policies:

1. The adequacy of any proposed implementation action in meeting the extraordinary demands for blood that may arise in national and regional emergencies;

2. The appropriateness of the replacement fee in an all-voluntary system;

3. System approaches to the integration of various functions and segments of the blood banking industry;

4. Regionalization of blood services management;

5. Appropriate inducements and authorities, whether existing or to be sought, necessary to exclude commercial acquisition of whole blood or blood components;

6. Special problems of accessibility for hemophiliacs and others with continuing or extraordinary needs for blood or blood products; and

7. Other issues relevant to the four principal goals.

[FR Doc. 74-5368 Filed 3-7-74;8:45 am]



E. KENT CARTER

President's page

A Changing Time and A Changing Attitude

The fact that we all pay dues and the majority of us attend meetings attests to our belief in our medical organizations. For most members medical organizations act as a source of scientific information, professional communication, and probably a source of social contact. All of these services are valuable.

Another function of organized medicine often overlooked by the majority of physicians consists of speaking and acting for medicine in legislative and socio-economic matters. Our organizations are our only organized and official voice. This latter function is assuming an increasingly important role in the life of the physician, as the government and the consumer insert themselves into the practice of medicine.

The burden of work in most medical organizations usually falls to the elected and appointed officials. Many times these officials neglect the political and socio-economic areas. Medicine must change its attitude and re-direct its effort because of the many socio-economic changes being legislated and proposed. To accomplish this change each and every physician must in some way, somehow, set aside enough time to keep himself informed on legislative and socio-economic matters as they concern medicine. He must be informed not only on the attitude of the consumer and the government, but he must become informed on internal problems of medicine, such as quality and cost of care, delivery of care, not only on a national basis but in each of our local areas.

Once we have become an informed body, we must elect officers and appoint delegates and committee members who are the best informed in our organization. They must not only be informed, but they must be willing to become involved. "Knowledge unused is a fool's treasure."

Once these representatives have been appointed or elected, the body of medicine composed of the practicing physicians must stand foresquare behind them, supplying them with informed opinions on the issues at hand, aiding them in political contacts and helping their representatives in presenting medical solutions to medical problems and to appropriate persons and organizations.

Last, but not least, the body of organized medicine must provide its leaders and paid representatives with financial support to carry on activities in the socio-economic and legislative fields.

In addition, something which is long past due—we must provide our representatives the wherewithal to carry our story to our critics and the public. I believe that an informed body of physicians represented by knowledgeable and involved officers and representatives who will carry our cause to the legislative body of the country and our story to the American public, can provide the public with the health care it expects. It must be controlled by physicians who understand health care and who will continue to respect the patient as an individual, not as a number or body sent to him by the government.

Sincerely,

PRESIDENT

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JUNE, 1974

editorials

Reprise—TMA, 1973-74

Each year at the annual meeting of TMA I am impressed again by the vast amount of work it takes to keep your Association rolling, and by the dedication of the TMA staff, officers, and committee chairmen—and *some* committee members. The meeting itself is of course a *tour de force*, but this is where only a very small part of the work surfaces each year. If you were one of the 400 or so who attended, you saw it. If you didn't, you missed not only the fruits of their labor, but also the beauty of the Smokies in Spring. You were twice a loser.

The resolutions passed by your House of Delegates and summaries of the reports of your of-

ficers appear elsewhere in this issue of the JOURNAL. Read them! But much of the continuing business of your Association was transacted on many a Sunday morning throughout the year by your committees and staff, and this will remain buried somewhere in the files. So while I'll not limit my remarks here to committee work, the primary purpose of this particular editorial is to give some recognition to it, and to present what in one man's opinion are at least some of the highlights of what went on in the past year, reaching its culmination in April in Gatlinburg.

The general scientific portion of the program was outstanding, thanks to the Committee on Scientific Affairs, and of course to the speakers themselves. I'll not pursue this further, because it will appear as a symposium in a future issue of the JOURNAL. But I will say it impressed the team from AMA, who were surveying our meeting for accreditation. We were given their assurance of the recommendation that our scientific program be accredited for Category I credit toward the AMA Physician's Recognition Award. This applies not only to the general scientific program, but to specialty scientific programs as well. Final approval rests with the AMA Council on Education, and will be considered at the council's May meeting. If we hear before this goes to press, you will be notified by an announcement following this editorial. There is every reason to believe we will be accredited, and accreditation is retroactive.

PSRO came in for its full share of attention, and since that subject received the full treatment in the May issue, I shan't dwell on it here, except to say that it continues to be a real pot-boiler and source of contention among our colleagues. Regardless of how you feel about it, you owe it to your patients to be informed about it. There is a lot of loose, inaccurate information around. You need to go to the law itself, which (or the appropriate portions of which) we have printed previously in the JOURNAL. All the information you need about it is in the JOURNAL within the past year. I repeat, like it or not, it is the law. If you don't like it, (and I'll say, "Welcome to the Club!") try to get it repealed. But in the likely event we can't, work to make it work to our advantage and for our patients.

One of the bad effects of all the flap over PSRO has been to dilute the efforts of the Continuing Education Committee, which has had to concern itself with getting our membership informed on PSRO. Long before Public Law

92-603 was on the books, or the Bennett Amendment to HR 1 was introduced, the Committee was hard at work trying to help medical staffs develop meaningful education programs based on need as determined by medical audit, and was recommending this be done by one of the computerized modes, such as CPHA's PAS/MAP program, or by a suitable manual program, such as the TAP program of the JCAH.

Then the government dropped PL 92-603 on us, and all of a sudden, the cart got put before the horse. While a proper education program would have assured proper utilization of care, the reverse will not work, and in fact so much concentration on utilization tends to dissipate the education effort. It also tends to make the doctors fed up with the whole business, particularly with all the in-fighting over who is best equipped to handle the data.

In spite of all this, your committee has been moving ahead. Our accreditation program received AMA approval for 4 years—the third such approved program in the country. One by one our medical staffs and societies are having their education programs accredited for Category I credit, by which doctors can receive credit for their education efforts in the context of their practice. If your program is not accredited, why not contact TMA? We have a full time director, whose sole job it is to help you become and remain accredited by having a really *good* education program. It will help you as much as anything else in helping your patients.

The Legislative Committee is always a hard working, busy committee, and in addition to impingement by pressing national problems, it came in for its share of frustrations this year from a particularly refractory legislature, which seemed more than most to be bent on furthering its own political ends. Its most far-reaching medical decision had to do with establishment of a medical school in conjunction with the Veterans Administration Hospital in Johnson City, which was the subject of an editorial last month.

Equally frustrating to the Legislative Committee and staff, however, is the apathetic attitude of physicians, who expect them single handedly to fight all our legislative battles. *No* doctors showed up to protest a very damaging amendment proposed by the Optometrists, who mustered 50 of their own members to lobby in favor of it. You can guess the outcome—and you can also guess who screamed the loudest—some of you who

should have been there looking after your interests.

Unless you are more aggressive in the next session of the legislature, the Chiropractors will do it to us in the same way. Only 11 of 99 house members saw fit to support TMA's amendment to the No-Fault Auto Insurance legislation which would eliminate chiropractic coverage as a legitimate medical expense. The reason is probably that *you* did not contact your legislators. The bill failed to see final action in the Senate. It will be back. Where will you be?

This editorial is becoming overly long, and if you have stuck with me to this point, I say not, "Thanks," but, "Congratulations!" I have touched on only some of the knottier problems in some of the thornier areas; it does not mean nothing else done was important. In fact, some of the most important areas and committees have not been mentioned, for example, the hard working committees on Hospitals, Rural Health, Inter-professional Relations, Rehabilitation, Emergency Medical Services, and so on. There are areas in the reports of officers and in the Resolutions which deserve comment, some of which will be the subject of subsequent editorials.

I shall close with this last comment. I said in the opening paragraph how impressed I always am by the amount of work it takes to make the Association go. Having said that, and having given some indication of that work, I shall say in closing that I am also impressed, or perhaps I should say distressed, but how few of TMA's members do the work of making it go. Even considering all of the committee members, the percentage is small, and I am on enough committees to know that even some of those members are non-functional.

Ask yourself, "Am I *really* pulling my weight in TMA? Am I a part of the solution to our problems, or am I a part of the problem?" Be honest with yourself. If you decide you could or should do more, let some of your representatives know. There's too much work for those now doing it, so they'll be happy to divide it up. And in case you think you're too busy—well, the people at work in TMA are some of the busiest people I know in caring for their patients. They are also doing *your* work. Why not get into the act?

J.B.T.

FDA and—NOW, Blood!

In compliance with a request from the Board of Trustees of TMA, we are reprinting in this

issue of the JOURNAL the recently enacted (March, 1974) National Blood Policy and its proposed implementation plan, with the recommendations of your Committee on Blood Banks and Laboratories, as amended by the Board.

I should like to make just three comments of my own on this and blood regulation generally.

First, read the statement. It's long, but it is vital to your practice.

Second, I must emphasize point number two in the committee's report, to the effect that, at least for the present, replacement of blood by friends and relatives of recipients is absolutely essential, and it is up to you to see that this is done. It is the only way to insure a supply of blood removed from the hazards of collection for fee from skid row bums and drug addicts. *This is your responsibility.*

A third and somewhat tangential, but certainly not least important point, is the observation that a National Blood Policy and federal licensure and inspection of blood banks will not automatically solve all of our problems, in spite of recent assurances by FDA, who has now decided that blood is a *drug*, and therefore within its purview, instead of blood *transfusion* being a service in which the implied warranty of blood as a *product* is not presently achievable (as defined by law in many states). FDA took its cue from some luridly publicized Chicago cases of hepatitis resulting from transfusion of alcohol-soaked virus-laden blood, without pointing out that this blood came from regularly inspected, federally licensed blood banks. The result has been to regulate all transfusion services who draw and/or process blood, regardless of size and whether or not they engage in interstate commerce. *All* must register and be inspected by the bureau.

Someone has pointed out that the government does not produce blood, only regulations. Our patients require the former, and we must live with the latter for the sake of the former.

This is just another episode in our running fight with FDA, now being joined by other agencies, over the increasingly heavy burden of the dead hand of imperialism—*oops!*—I mean *bureaucracy*.

J.B.T.

TFMC

In his report to the House of Delegates, abstracted elsewhere in this issue, our president, Morse Kochtitzky, M.D., said

"I can hardly see that we have any alternative, other than to 'stay on top of the PSRO issue.' We must push forward to control our own destiny. Many outside organizations are working tirelessly in an attempt to take over peer review. . . . What position are you desirous of being in for the future—peer review or bureaucratic regimentation? . . .

"Government has passed the Professional Standards Review Organization law (P.L. 92-603) which it authorizes us to establish. Under our guidance, it may be possible to use this law to our advantage and to that of our patients by improving medical care by pinpointing areas of educational needs both for the physician and his patients. I have grave doubts that it will work even with our diligent attempt. I do know that the Federal Government clearly intends to attempt to make it work with or without us.

"I am convinced that without us there is no doubt that PSRO will prove to be the destructive instrument of one of the finest health delivery systems in the world—ours. As long as the government allows us to administer our own standards and does not impose the standards of bureaucratic Washington or Nashville upon us, we should attempt to make it work. If this prerogative ever be taken from us, that will be the time to show our real strength of our cohesiveness and purpose of action, namely, the best medicine for the most people at reasonable cost without any interference between the physician and his patients."

To my mind this is an accurate evaluation of our situation. PSRO is not going to go away without having been tried. In order to implement what most of us concede to be a bad law, TMA something over a year ago established the Tennessee Foundation for Medical Care, with the hope that it would function as the PSRO for Tennessee. This hope has been partially frustrated by HEW, but we do currently have the possibility that it will serve as the PSRO for all of the state except for the westernmost part of the state, hopefully only Shelby County—at least, it has applied for that designation.

I have serious reservations about some of the activities of the Foundation to date, some of which have been previously expressed in these columns. Nevertheless, the TFMC beats any of the presently available alternatives by a country mile—they being the Comprehensive Health Planning Agencies, Tennessee Hospital Association,

insurance carriers, and federal agencies. It is therefore imperative that you join the Foundation. In order to be allowed as a PSRO, it must have a membership comprising a significant percentage of the physicians in the area. Joining will not obligate you financially, nor will it obligate you to subscribe to the Foundation's data system.

To the objection I hear most often, that it is just another bureaucracy, that physicians can be just as bureaucratic as anyone else, I can only say, perhaps. But at least, they're *our* bureaucrats. And if we can't come up with a PSRO within 2 years, the Secretary of HEW is instructed to designate one, and membership will be 100 percent—by fiat.

Well, how about it? In the words of TMA's president, "The choice is yours! Let it not be said in the future that we sank our own ship!"

J.B.T.



BROCK, JOSEPH H., Memphis, died April 15, 1974, age 50. Graduate of Vanderbilt University Medical School, 1947. Member of Memphis-Shelby County Medical Society.

BUCK, KINSEY M., Memphis, died April 21, 1974, age 83. Graduate of University of Tennessee Medical School, 1912. Member of Memphis-Shelby County Medical Society.

KIRBY-SMITH, HENRY T., Sewanee, died April 4, 1974, age 66. Graduate of University of Pennsylvania, 1931. Member of Franklin County Medical Society.

LAYMAN, ROBERT P., Knoxville, died April 4, 1974, age 66. Graduate of University of Tennessee Medical School, 1932. Member of Knoxville Academy of Medicine.

RYBACOK, TARAS H., Signal Mountain, died April 8, 1974, age 57. Graduate of Temple University Medical School, 1941. Member of Chattanooga-Hamilton County Medical Society.

WILLIAMS, EDWIN LEA, Nashville, died April 15, 1974, age 56. Graduate of Vanderbilt School of Medicine, 1942. Member of Nashville Academy of Medicine.



The JOURNAL takes this opportunity to welcome these new members of the Tennessee Medical Association.

CHATTANOOGA-HAMILTON COUNTY MEDICAL SOCIETY

Robert Eugene Bowers, M.D., Chattanooga

James R. Boyce, M.D., Signal Mountain
David A. Chadwick, M.D., Chattanooga
W. C. A. Sternbergh, Jr., M.D., Chattanooga
Marion W. Westermeyer, M.D., Chattanooga

COFFEE COUNTY MEDICAL SOCIETY

Jerry L. Kennedy, M.D., Tullahoma
M. Clark Woodfin, Jr., M.D., Tullahoma

NASHVILLE ACADEMY OF MEDICINE AND DAVIDSON COUNTY MEDICAL SOCIETY

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N. K. Bhagavan, M.D., Nashville
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R. Darryl Fisher, M.D., Nashville
William B. Ralph, Jr., M.D., Nashville
Salil Roy, M.D., Nashville
Clyde W. Smith, M.D., Nashville
Leon Festus Woodruff, Jr., M.D., Nashville

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Phillip W. Hayes, M.D., Dickson
W. W. Taylor, Jr., M.D., Dickson
Eldred H. Wiser, M.D., Dickson

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Fred A. Hurst, M.D., Knoxville

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Edna M. Davis, M.D., Memphis
Thomas A. Davis, M.D., Memphis
R. D. Drewry, Jr., M.D., Memphis
Jerry Engelberg, M.D., Memphis
Leonard H. Hines, M.D., Memphis
Joseph S. Hudson, M.D., Memphis
John T. Morris, M.D., Memphis
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John K. Twilla, M.D., Smithville

SUMNER COUNTY MEDICAL SOCIETY

David E. Darrah, M.D., Gallatin
Lu Ponce, M.D., Portland

programs and news of medical societies

Marshall County Medical Society

The Marshall County Medical Society met April 22, 1974 in the Conference Room of Lewisburg Community Hospital.

The scientific program consisted of a film presented by Abbott Laboratories on "Hyperalimentation."

Memphis & Shelby County Medical Society

The Society met on May 7, 1974 at the Schreier Auditorium of the Wassell Randolph Student Alumni Center.

The program consisted of a discussion on "Socio-Economics." Participating were Mr. Dunlap Cannon, Jr., who discussed "The Importance of Wills," and Mr. Curtis L. Scott, who spoke on "Investment Planning for Professionals." A Panel Discussion followed consisting of: Mr. Cannon, Mr. Scott, Dr. William T. Satterfield, Sr., and a representative from the Woman's Auxiliary.

Nashville Academy of Medicine and Davidson County Medical Society

The Academy met on May 14, 1974 at the Baptist Hospital and devoted the meeting to "National Health Insurance." Mr. Wayne Bradley of the Washington, D.C. AMA office, Assistant Director of Public Affairs, viewed the current proposals before Congress including the Kennedy-Mills plan, AHA's Ameriplan, AMA-sponsored Medcredit bill, and others. Following the presentation a question-answer session was held.

The Board of Directors has approved plans to relocate the Academy office. On May 1, 1974, the Board unanimously agreed to purchase a lot at 205-23rd Avenue North, consisting of almost 12,000 square feet on which is located a building with almost 4,500 square feet. The Academy will occupy the building as soon as renovation is completed.

national news

THIS MONTH IN WASHINGTON (From Washington Office, AMA)

Triggered by the surprise introduction of a

Kennedy-Mills proposal for national health insurance and a major effort by the Nixon Administration to get its own bill through this year, the Congress has again started a hot and heavy debate on the complex issues involved.

Appearing before the House Ways and Means Committee, Russell B. Roth, M.D., president of the American Medical Association, warned that most of the congressional push for national health insurance (NHI) is based on the false premise that there is a health care crisis.

"The fact is," Dr. Roth told the Committee, "more people are receiving more and better medical care from more and better trained physicians in more and better equipped facilities than ever before in history. These are not elements of crisis. The fact also is that the public, as its opinion has been judged in various polls, does not perceive medical service to be a major problem area.

"No doubt the Committee recalls a recent Louis Harris poll, commissioned by a Senate subcommittee, which indicated that whereas 64 per cent of the sample identified inflation as our nation's most serious problem, health care rated 15th, or next to last on the list, with only 3 per cent of the respondents putting emphasis on this. Inasmuch as any of the proposals for extensions of federal subsidies for medical service are inevitably inflationary to some degree, one wonders about the advisability of further aggravating this most serious problem in order to attack a problem of much lesser magnitude.

"Poll after poll confirms that people are generally satisfied with the type of health care they personally receive. This satisfaction relies on wide experience, for some 2.5 million people a day see a physician. A 1971 University of Chicago study, based on a nationwide sample, found 84 per cent of the people satisfied, only 10 per cent dissatisfied. Just last month a survey commissioned by the *Washington Post* uncovered a virtually identical pattern in this area. According to Mr. Jay Mathews' story, six of every seven local residents are at least "pretty satisfied" with their medical care. Only one person in ten expressed any measure of discontent. It would be an interesting exercise to see if you could find another issue or subject these days upon which Americans would voice 85 or 90 per cent agreement.

"Reflected in the results of the polls is a record of at least ten years of substantial progress. During this period the number of Ameri-

can medical schools and the number of physicians available to the American public have been increasing. Physician numbers will continue to increase at a pace which exceeds the general population growth rate."

Speaking strongly in support of the AMA sponsored Mediredit bill for NHI, Dr. Roth urged the Committee to follow the guiding principles developed by the AMA in its proposed legislation.

"We are convinced," Dr. Roth said, "that financial barriers to medical services are as real for middle income persons as for the poor—that there is great virtue in attention to ability to pay deductible and coinsurance amounts—and that our graded tax-credit approach is a superior feature in adjusting subsidies to needs."

Lashing out at the Kennedy-Mills NHI proposal, Dr. Roth said, "It is one thing to mandate the purchase of private insurance by employers. It is something quite different to institute increased payroll taxes, destroy the future of private insurance and shift a well-regarded private function into a federal agency."

The financing envisioned in the Kennedy-Mills proposal gives us several problems:

"It creates a massive 4 per cent increase in the Social Security tax. Wage earners will not be deluded by the fact that 3 per cent is to be paid by employers and 1 per cent by employees. The Public is sophisticated enough to know that there is no free ride in this respect and the source of the funds to pay for such federal programs is from their compensation.

"We would point out further that under Social Security taxes, he who earns \$20,000 a year pays the same as a person who earns 90 or 100 thousand. In our view, it would be more equitable for those who make more to pay more. We would prefer the sort of consistent sliding scale approach that is embodied in the Mediredit bill. Finally, we would seriously question the proposition that by eliminating the profit factor Social Security handling of health insurance finances will bring economies and efficiencies.

"The track record of government—our own and others as well—provides scant historical evidence that its capacity to manage surpasses private management in terms of either efficiency or economy.

"Administrative control derives in large part from financing mechanisms, and, since we advise strongly against control of a new program by the

Social Security Administration, we would avoid Social Security financing.

"There can be no justification for the establishment of a vast and expensive new corps of clerks and bureaucrats dedicated to the task of complicating what should be a relatively simple program for placing in the hands of the eligible beneficiary a policy of insurance or a contract for service tailored to his needs."

* * *

The day before the AMA testimony before the Ways and Means Committee, Health, Education, and Welfare Secretary Caspar Weinberger told committee members that the Administration is dead serious about pushing for enactment of a NHI program this year.

Secretary Weinberger came down hard on the Kennedy-Mills proposal that would move toward the federalization of the nation's health care.

Discussing the "fundamental differences" between the so-called compromise plan sponsored by Kennedy and Mills, and the Administration's Comprehensive Health Insurance Plan (CHIP), Weinberger declared:

"I would be less than candid if I did not stress how strongly we are committed to the basic principles of the CHIP proposal."

The Secretary told the crowded hearing room that "the national climate has never been more favorable for the development of a sound consensus on a national program of health insurance . . . I am here to urge—just as strongly as I possibly can, personally and on behalf of the Administration—that this clear chance at solid accomplishment not pass without the nation's action.

"We firmly reject the views of those few who counsel that no action be taken until some vague future time when they believe that their own plan can be enacted. Such a time will never arrive."

A major reason for prompt action, Weinberger said, is the prospect that "the American people appear to be in for a very rough period indeed as far as health care costs are concerned." Congress' failure to approve continued wage-price controls on health could lead to a \$4 billion to \$5 billion increase in health care costs next fiscal year and \$9 billion the following year, he cautioned.

If this happens, all current cost estimates for various NHI proposals "would be far too low." He said "the Nation desperately needs measures to avoid such a pocketbook disaster."

In devising the CHIP plan, based on mandated

employer health insurance plans for employees, Weinberger said the Administration believed "it is imperative to improve, rather than demolish, the present system."

Though the cabinet secretary took swipes at all the major NHI competitors to CHIP, he not surprisingly reserved most of his fire for the Mills-Kennedy compromise. This bill calls for a Social Security NHI financed by a four per cent tax and administered by Social Security as a virtually independent agency.

Mills-Kennedy, according to Weinberger, "would take a major step down the road toward complete federal financing and control of all health care in the United States.

"If that policy approach were to prevail, I feel there would be no turning back."

The financing of health care is too important to the people "to turn over to a federal bureaucracy," he asserted. Noting the complexities of the health system and the relative lack of knowledge of its workings, he said "in these circumstances the dangers of turning financial control of this vital industry over to an enormous new federal bureaucracy are considerable."

Quashing speculation that the Administration might try to reach an accommodation on the Mills-Kennedy approach, Weinberger hammered away at it, making it plain that he regarded the Mills-Kennedy plan as the big danger. He said it would stifle private initiative "under piles of paperwork and federal regulations."

"We believe that the federal role in health financing must be clearly limited, as it is in CHIP. National health insurance should not be the nationalization of the health system."

The Administration officer said Mills-Kennedy would impose \$40 billion of new federal taxes "on top of a tax burden that many Americans already believe is excessive." Furthermore, Weinberger said, "payroll taxes are a much greater burden on the poor than is general revenue financing."

He said the Kennedy-Mills plan would virtually eliminate privately administered health insurance and substitute a fully federally financed and administered system. "Our present system should be improved upon rather than dismantled in favor of a costly, inflexible federal system."

"The budgetary impact on the federal government," Weinberger maintained, "is simply unacceptable."

* * *

The government's procedures to assure that Professional Standards Review Organizations

(PSRO's) represent physicians in their local areas have been announced.

The PSRO law requires that the HEW department before entering into an agreement with an organization to be the PSRO for an area, must notify the physicians of that area of the intent. The physicians then have the opportunity to object to a specific organization being named as the PSRO. The method to be used in notifying the nation's physicians of the proposed PSRO's and the subsequent steps to be taken in assuring that the organizations are acceptable to the physicians are detailed in the *Federal Register* of April 16.

"In keeping with the PSRO legislation, we have developed procedures to assure that the organizations established as PSRO's throughout the country are truly representative of the physicians in each of the PSRO areas." HEW Secretary Caspar Weinberger said. "It is the local physicians who will plan, operate and control the PSRO in each area, and, therefore, the organization designated as the PSRO must be their organization," he said.

When the Secretary has determined that a local physician organization is qualified to perform the PSRO functions required by law, he will notify the area's physicians and other health professionals by announcements in the local press and mailed notices to physician and hospital organizations active in the area. The notice will also be published nationally in the *Federal Register*.

The notice will announce the Secretary's intent to enter into a financial agreement with a specific organization, describe the organization, and indicate that active, practicing physicians in the area have 30 days in which to protest the proposed selection. If less than ten per cent of the local area's doctors object to the proposed organization, the law provides that the Secretary can designate and fund the PSRO that he has chosen. However, if more than ten per cent do object, the Secretary will conduct polls of the physicians in the area. HEW will mail a ballot to each doctor who practices in the area on which he can indicate whether the organization provisionally selected by the Secretary does or does not represent him.

A 30-day period will be allowed for the ballots to be returned. If more than 50 per cent of the respondents to the poll indicate that the organization does not represent them, the Secretary will no longer consider that organization for PSRO designation. If less than half object, the Secretary, by law, can conclude his agreement with the local PSRO.

* * *

The government has labeled as "factually inaccurate and misleading" a kit on Professional Standards Review Organizations (PSRO's) prepared by the American Medical Association.

In a critique of the kit, the Health, Education and Welfare Department said many of the PSRO review functions actually are embodied in the Social Security Act's Medicare and Medicaid provisions that were approved long before PSRO.

The HEW paper contends that the purpose of PSRO "was to give practicing physicians priority in undertaking the review of care provided rather than have the review performed by those outside the medical profession."

Contents of the kit, entitled "PSRO—DELETERIOUS EFFECTS," have been criticized by HEW and Senator Wallace Bennett (R., Utah), chief Congressional sponsor of the PSRO provision. The kit was prepared and distributed by the AMA at the behest of the AMA's House of Delegates to alert the medical profession to the dangers of such a review system.

* * *

Theodore Cooper, M.D., has been appointed deputy to Assistant HEW Secretary for Health, Charles Edwards, M.D. Dr. Cooper is director of the National Heart and Lung Institute. Henry Simmons, M.D., who has been serving as Dr. Edwards' right hand man, will continue to hold a deputy position but will concentrate henceforth most of his efforts at directing the Professional Standards Review Organization (PSRO) program. Dr. Cooper is regarded as one of the government's most able health officers. One of the first heart transplant researchers, he is a renowned expert on the heart.

medical news in tennessee

Upper Cumberland Medical Society Meeting Set for June 19-20

The 80th Annual Meeting of the Upper Cumberland Medical Society will be held at the Donoho Hotel in Red Boiling Springs, June 19-20, 1974.

This society, the oldest continuously meeting Medical Society in Tennessee, will again present an outstanding program of scientific presentations featuring, among other things, a symposium on Recent Advances in the Treatment of Hypertension. The program begins at 9:00 a.m., on Wed-

nesday, June 19, 1974 and runs throughout the day and Thursday until noon. It has been customary to have a "President's Party" on Wednesday evening to which all members are invited.

Many members bring wives and children as this is a very informal and relaxed atmosphere in which even small children find themselves very much at home. The scientific program will be of interest to specialists and generalists alike and attendance is open to all licensed physicians in the United States.

Cumberland Foundation to Build Womens' Alcoholic Treatment Center

The Cumberland Foundation, a charitable institution which has spearheaded treatment of alcoholism at its Cumberland Heights facility for men, announced today a \$350,000 fund-raising drive to construct a companion center for females suffering the chronic illness.

"Cumberland Heights is proud to have a record of providing permanent benefit to some 80 percent of the 2,200 guest admissions who have participated in the program since 1966, but sadly we have only gone part way in attacking the tragedy of alcoholism," said J. Paschall Davis, president of the Cumberland Foundation.

"Although experts believed for years that the incidence of alcoholism among women was about one-fourth that of men, the best estimates today show that women comprise almost half of the nation's nine million alcoholics," Davis said, explaining that the increased number of women who drink has been a part of a sharp national increase in drinking by members of both sexes.

"The special nature of alcoholism among many women is that it often grows hidden behind the doors of their homes. This illness usually begins as a result of loneliness in an empty home while husbands are away at work and while children are either at school or beginning their own lives," he said.

"Cumberland Heights already has a long-term commitment to meet this challenge and assist the afflicted, but what we do not have is the \$350,000 needed to construct a new building for women at the Cumberland Heights farm and fund the program during its first year of operation," Davis said.

Plans for the new facility, to be constructed on part of Cumberland Heights' 177 acres of rolling farm land overlooking the Cumberland River northwest of Nashville, call for an all steel building with sculptured steel exterior panels painted

white with mansard brown trim. The 9,000 square foot building will house sixteen women in eight double rooms. There will also be a visitor's room, counselor's office, recreation room, and library in the new building.

A major feature of the new facility will be the detoxification unit, with a male and female ward, each capable of treating four patients. Completion of the new facility will be 90 days after ground breaking.

Established by a wide group of public-spirited laymen and physicians as a nonprofit, self-sustaining institution, Cumberland Heights employs many of the day-by-day principles of Alcoholics Anonymous so its guests learn how to cope with their problems together to build a future life of happiness and sobriety.

The existing Cumberland Heights facility includes two residential cottages and a central services building where meals are served "family style" in a large dining room. The present \$600.00 fee for three weeks includes all costs of room, food, physical examinations, medical care, detoxification treatment and other necessities.

While Tennesseans have comprised the largest single group of men treated at Cumberland Heights, the guests—all of whom come to the facility on a strictly voluntary basis—represent 40 states, 4 provinces of Canada, and several foreign countries.

personal news

DR. CHARLES ALLEN, Johnson City, has been named "Outstanding Citizen of the Year" by the Johnson City Civitan Club.

DR. WILLIAM P. BAILEY, Johnson City, has been presented the Tennessee Lung Association's "Volunteer of the Year" award.

DR. JOHN H. BOWEN, M.D., Louisville, has been named Fellow in the American College of Radiology.

DR. WALTER E. DERRYBERRY, Cookeville, has been installed as a Fellow of the American College of Obstetricians and Gynecologists.

DR. RICHARD L. DeSAUSSURE, Memphis, has been elected president-elect of the American Association of Neurological Surgeons.

DR. STEPHEN KRAUSS, Knoxville, has received certification in the field of oncology from the American Board of Internal Medicine.

DR. LAWRENCE MOFFATT, Johnson City, has submitted his resignation as director of the Tri-County Health District and has assumed full-time director of the Washington County Health Department.

DR. JAMES J. NICKSON, Memphis, has been appointed the first director of the Memphis Cancer Research and Clinical Center.

DR. DILLARD M. SHOLES, JR., Johnson City, has been re-elected to the board of directors of the Blue Cross-Blue Shield of Tennessee.

DR. HARRISON J. SHULL, Nashville, has been elected Vice President of the American College of Physicians.

DR. M. FRANK TURNEY, Knoxville, has been installed as President of the Southern Neurosurgical Society.

DR. CLAUDE M. WILLIAMS, Cookeville, has been appointed to the State Health Planning Council by Governor Winfield Dunn.

announcements

CALENDAR OF MEETINGS

STATE

June 18-21	Emergency Care and Transportation of the Sick and Injured, U.T. College of Medicine, Memphis
June 19-20	Upper Cumberland Medical Society, 80th Annual Meeting, Donoho Hotel, Red Boiling Springs

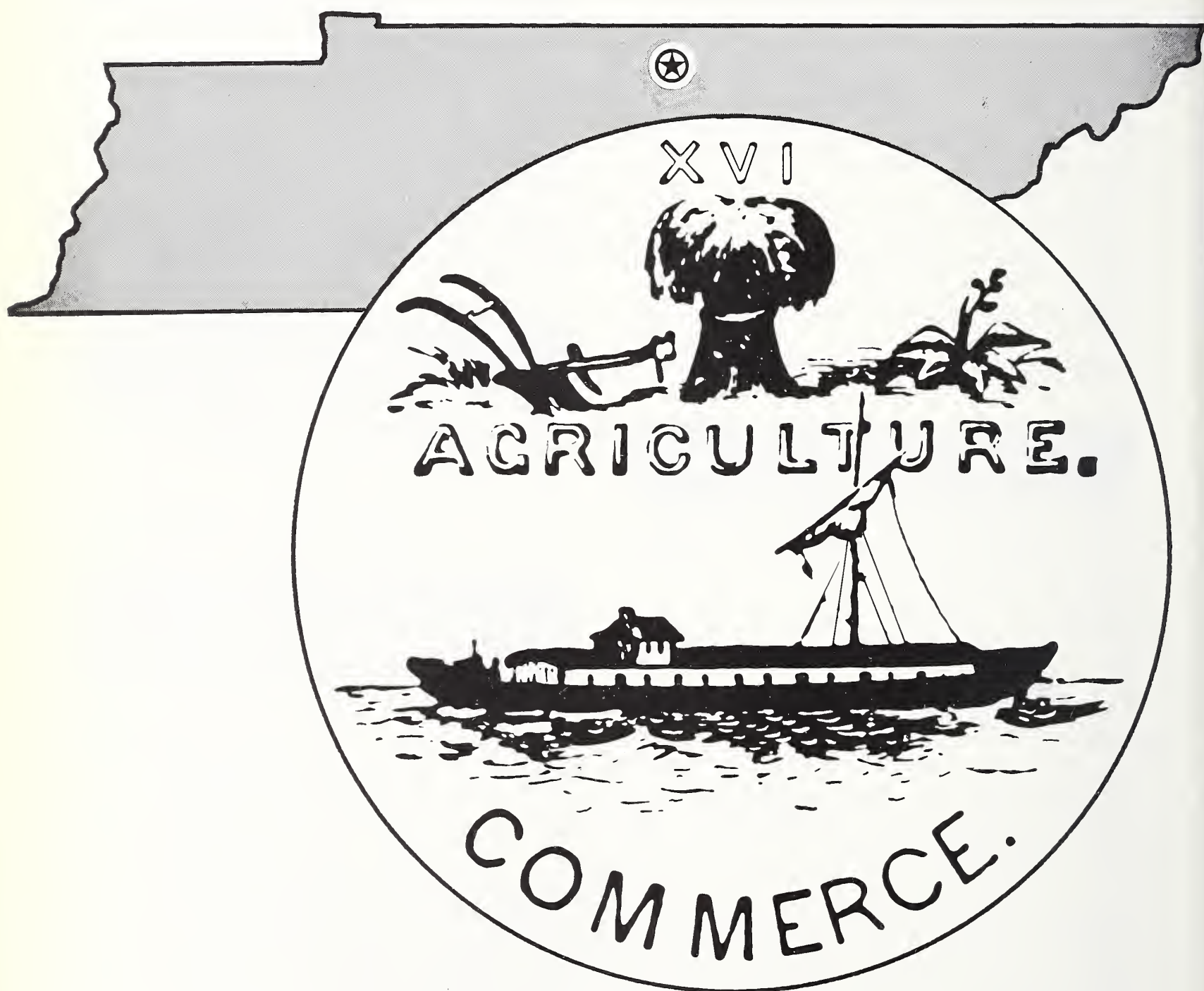
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Common Language Urged for Medical Procedures

CPT-3 means Current Procedural Terminology—3rd Edition. It is described as "a common language that accurately describes the kinds and levels of services provided and that can serve as a basis for coverage and fee determination."

CPT-3 was developed in book form by the American Medical Association as a coded reporting system suitable for computer handling. It has been widely adopted across the nation. The AMA system assigns a code number to each of the thousands of different medical procedures that may be performed in treating illness. Each number signifies a specific aspect of treatment. These numbers can be easily fed into computers for record keeping. What does CPT-3 mean to the individual patient? It means better medical care. It's a check list for doctors to insure that they have done everything needed to insure rapid recovery. It makes it much easier to monitor costs of health care. It speeds and simplifies review procedures, whereby a medical committee can check up on the handling of a case.

Because you practice medicine in the Volunteer State...

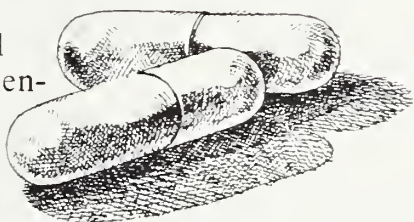


You carry one of the heaviest patient loads in the country. Since this may include a number of patients with gastritis and duodenitis... you should know more about Librax®

Helps reduce anxiety-related G.I. symptoms

A patient may blame his attacks of gastritis or duodenitis on "something he ate" but contributing factors may be his job, marital problems, financial worries or some other unmentioned source of stress and excessive anxiety that exacerbated the condition.

Whether it is "something he ate" or "something eating him," adjunctive Librax can help. Librax offers both the antianxiety action of Librium® (chlordiazepoxide HCl), that can help relieve excessive anxiety, and the dependable anticholinergic action of Quarzan® (clidinium Br), that can help reduce gastrointestinal hypermotility and hypersecretion.



Patient-oriented dosage — up to 8 capsules daily in divided doses

For optimal response, dosage can be adjusted to suit patient needs—1 or 2 capsules, 3 or 4 times a day.

To help relieve anxiety-linked symptoms in gastritis and duodenitis adjunctive Librax®



Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br.

Before prescribing, please consult complete product information, a summary of which follows:

Contraindications: Patients with glaucoma; prostatic hypertrophy and benign bladder neck obstruction; known hypersensitivity to chlordiazepoxide hydrochloride and/or clidinium bromide.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering Librium (chlordiazepoxide hydrochloride) to known addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of childbearing age requires that its potential benefits be weighed against its possible hazards. As with all anticholinergic drugs, an inhibiting effect on lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude development of ataxia, oversedation or confusion (not more than two capsules per day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (*e.g.*, excitement, stimulation and acute rage) have been reported in psychiatric patients. Employ usual precautions

in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: No side effects or manifestations not seen with either compound alone have been reported with Librax. When chlordiazepoxide hydrochloride is used alone, drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally with chlordiazepoxide hydrochloride, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax are typical of anticholinergic agents, *i.e.*, dryness of mouth, blurring of vision, urinary hesitancy and constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.



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continuing education opportunities

The continuing medical education accreditation program of TMA has full approval by AMA's Council on Medical Education. If the continuing medical education program of your hospital or medical society is accredited by TMA's committee, you may receive for your attendance at its functions Category 1 credit for the AMA Physician's Recognition Award. If you wish information as to how your hospital or society may receive accreditation, write: Director of Continuing Medical Education, Tennessee Medical Association, 112 Louise Avenue, Nashville, Tennessee 37203.

20th Annual OB-GYN Seminar

INSTITUTE FOR SEX RESEARCH
1974 SUMMER PROGRAM IN
HUMAN SEXUALITY
June 16-27, 1974

Lecture course, forums on sociosexual issues, sex counseling symposium, attitude-reassessment program. Registration fee: \$285.00. Registration ends May 17. Write: Institute for Sex Research—Summer Program
416 Morrison Hall
Indiana University
Bloomington, IN 47401

Clinical Training Program For Practicing Physicians

Opportunities for advanced clinical education for physicians in family practice and in various subspecialties have been developed by the School of Medicine and the Division of Continuing Education of Vanderbilt University. The practicing physician, with the guidance of the participating department chairman, can plan an individualized program of one to four weeks to meet recognized needs and interests. The experience will include contact with patients, discussion with clinical and academic faculty, conferences, ward rounds, learning individual procedures, observing new surgical techniques, and access to excellent library resources. Experience in more than one discipline may be included.

Participating Departments and Divisions

Anesthesiology Bradley E. Smith, M.D.
Medicine Grant W. Liddle, M.D.
Cardiology Gottlieb C. Friesinger, III, M.D.
Chest Diseases James D. Snell, M.D.
Dermatology Robert N. Buchanan, Jr., M.D.
Endocrinology & Diabetes .. Grant W. Liddle, M.D.
Gastroenterology Steven Schenker, M.D.
Hematology Robert C. Hartmann, M.D.

Infectious Diseases Zell A. McGee, M.D.
Renal Diseases H. Earl Ginn, M.D.
Clinical Pharmacology John A. Oates, M.D.
Neurology Gerald M. Fenichel, M.D.
Obstetrics & Gynecology Paul W. Griffin, M.D.
Pathology Virgil S. LeQuire, M.D.
Pediatrics David T. Karzon, M.D.
Psychiatry Marc H. Hollender, M.D.
Radiology John R. Amberg, M.D.
Surgery
General H. William Scott, Jr., M.D.
Neurological William F. Meacham, M.D.
Ophthalmology James H. Elliott, M.D.
Oral H. David Hall, D.M.D.
Pediatric James A. O'Neill, M.D.
Plastic John B. Lynch, M.D.
Thoracic & Cardiac Harvey W. Bender, M.D.
Urology Robert K. Rhamy, M.D.
Cancer Chemotherapy .. Vernon H. Reynolds, M.D.

ELIGIBILITY: All licensed physicians are eligible.

ADMINISTRATIVE FEE: \$200.00 per week.

CREDIT: American Medical Association Physician's Recognition Award and American Academy of Family Physician's Continuing Education accreditation.

APPLICATION: For further information and application, contact:

Paul E. Slaton, M.D., Director, Continuing Education
305 Medical Arts Building
Nashville, TN 37212 Tel. 615-322-2716

Symposium on the Recent Advances In the Practical Management Of Allergic Diseases

A 3-day symposium will be held for the general medical community at a resort hotel this summer or early fall, with outstanding specialists in the field of allergy as featured speakers. A golf and tennis tournament will be held in conjunction with this symposium. Please contact:

Claude A. Frazier, M.D.
4-C Doctors' Park
Asheville, NC 28801

Audio-Cassette Directory Available

Many doctors rely upon audio-cassette tape-recordings for part of their continuing medical education, usually by subscribing to Audio-Digest or Accel or one of the other well-known educational services. There are, however, many other medical programs that are available on audio-cassettes, often without charge.

To aid the physician in locating these little-known but often useful programs, Cassette Information Services of Los Angeles has published its 1974 Directory of Spoken-Voice Audio-Cassettes. Although the services

for the health sciences—medicine, nursing, pharmacy, dentistry, hospital administration—comprise a large portion of this 108-page directory, it lists programs in all fields and interests. These range from courses for accountants and management executives to inspirational and entertainment tapes for shut-ins. There is also a large selection of "how-to-do-it" programs, including many on such topics of interest to the physician as hypoglycemia, acupuncture and the Lamaze method of childbirth preparation.

The CIS Directory is not a catalog, but rather a compendium of program titles and subjects that can be found on audio-cassettes, a brief description of each (including price), and from whom the tape or more information may be obtained. The directory itself is available for \$5.00 from Cassette Information Services, Box 17727, Los Angeles, CA 90057.

* * *

The University of Michigan School of Public Health

The University of Michigan School of Public Health is offering a graduate program of study in Mental Retardation and Related Disabilities.

The postgraduate program is a 21-month course leading to an MPH degree and qualification in the field of Mental Retardation. Fees are regular school tuition in the School of Public Health; and terms begin in September and January.

For further information contact:

Arthur W. Fleming, M.D.
The University of Michigan
School of Public Health
Ann Arbor, MI 48104

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WHAT? A valuable cancer education service through toll-free telephone calls that bring the most recent diagnostic and therapeutic information on specific neoplastic disease problems.

WHERE? In the Southern Medical Association area through co-sponsorship of The University of Texas System Cancer Center.

WHEN? Monday-Friday, 8:00 a.m. to 7:00 p.m., CDT; Saturday, 8:00 a.m. to 11:00 a.m., CDT.

For telephone numbers, list of specific topics, and procedures:

Write: Southern Medical Association
2601 Highland Avenue
Birmingham, Alabama 35205

Ask for *DIAL ACCESS SYSTEM* catalogue.

20th Annual OB-GYN Seminar

The 20th Annual OB-GYN Seminar will be held again this year in Asheville, North Carolina at the Grove Park Inn, July 21 through July 26.

A wide variety of subjects in obstetrics and gynecology

will be presented and program participation will include the medical schools of North Carolina, Duke, Bowman Gray and the Medical College of Virginia, in addition to outstanding speakers from other areas.

For registration information, please contact the Secretary, Dr. George T. Schneider, 1514 Jefferson Highway, New Orleans, Louisiana (Jefferson) 70121.

Diabetes-Endocrinology Center At Vanderbilt Offers Tests

As a service to Middle Tennessee's practicing physicians and research scientists, Vanderbilt's Diabetes-Endocrinology Center is now able to provide certain diabetes-related diagnostic assays and tests through its newly established Diabetes Service and Research Support Laboratory, Room A-5203, in the Vanderbilt Medical Center.

Although this laboratory is "sponsored" by the Center, it is not supported by the Center's federal research funds and must, therefore, make modest charges for its services both to the Center's investigators and to physicians and researchers who are not directly affiliated with the Center.

For additional information, please call (615) 322-2197 or, at night, (615) 356-5397.

Annual Otolaryngologic Assembly

The Annual Otolaryngologic Assembly of 1974 will be held October 26 through November 1, 1974, in the Eye and Ear Infirmary of the University of Illinois Hospital. The Department of Otolaryngology of the Abraham Lincoln School of Medicine, University of Illinois at the Medical Center, offers a condensed basic and clinical program for practicing otolaryngologists under the direction of Emanuel M. Skolnik, M.D., with Burton J. Soboroff, M.D., as co-chairman. This program is designed to bring to specialists current information in medical and surgical otorhinolaryngology.

Interested otolaryngologists should direct their inquiries to the mailing address: OTOLARYNGOLOGY, P.O. Box 6998, Chicago, IL 60680.

Workshop on the Surgery Of Chronic Ear Disease

The Department of Otolaryngology of the University of Illinois, Abraham Lincoln School of Medicine, announces a Workshop on the Surgery of Chronic Ear Disease to be held October 2 through 4, 1974.

The workshop will deal with canal preservation in surgery for cholesteatoma. The technic of canal preservation will be taught by closed circuit surgical color television and temporal bone dissection. Seminars will be held to discuss the difficulties and complications of these technics.

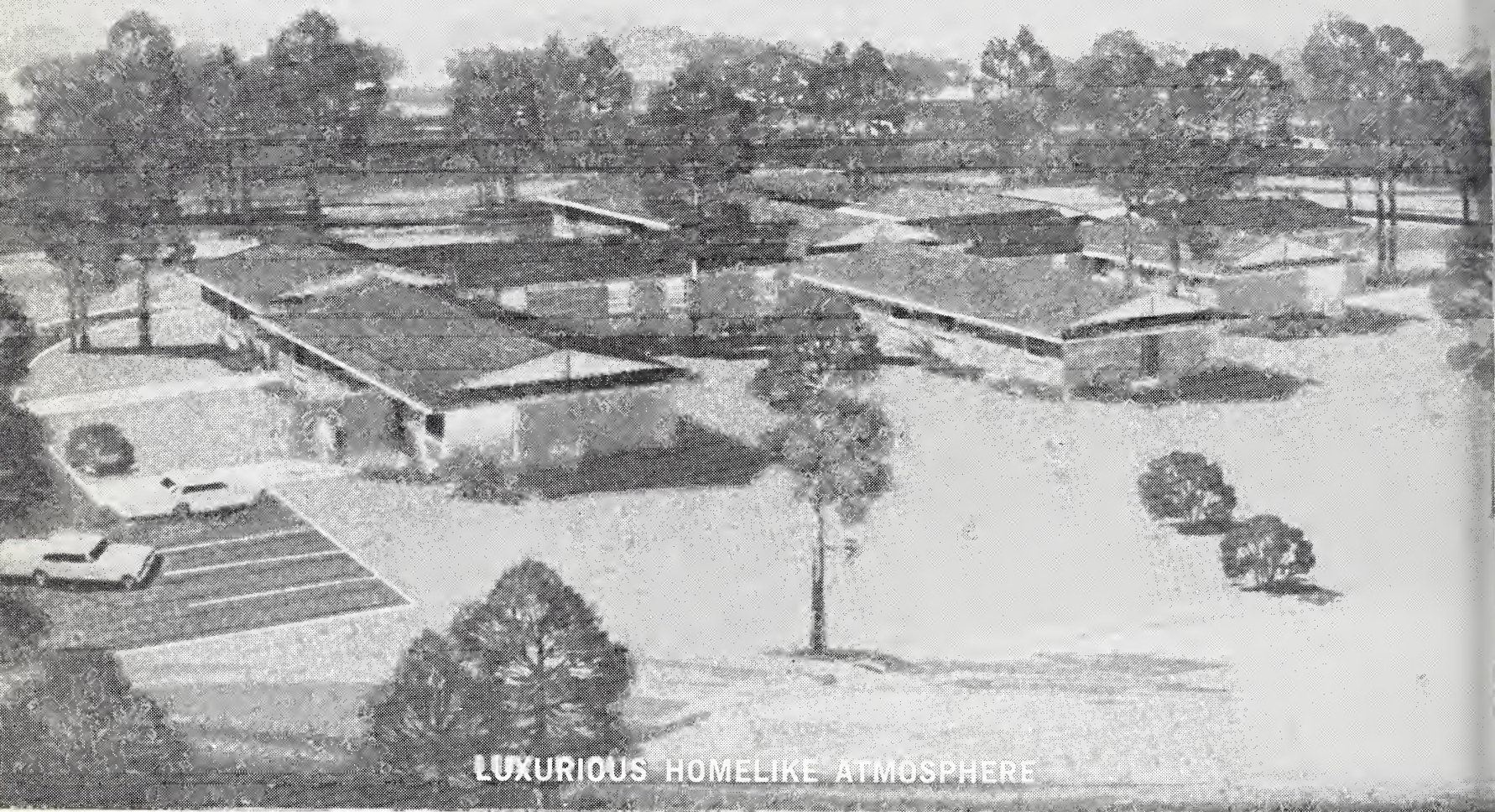
Interested registrants may write directly to the Department of Otolaryngology, University of Illinois Hospital Eye and Ear Infirmary, 1855 West Taylor Street, Chicago, Illinois 60612.

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AND OTHER DRUG DEPENDENCY CONDITIONS

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Dorothy R. Mooney
Administrator

MEMBER GEORGIA HOSPITAL ASSOCIATION

Maternal and Child Health Program

The Maternal and Child Health Program of the University of California School of Public Health at Berkeley announces postgraduate courses of instruction for pediatricians, obstetricians, and other physicians interested in receiving training in the field of Maternal and Child Health. These programs all lead to the degree of Master of Public Health. Tax-exempt Fellowships are available, consisting of support for the trainee and his dependents, tuition and fees.

Program areas at the present time include nine-month programs in Maternal and Child Health, Day Care and the Preschool Child, Health of School-Age Children and Youth, and Maternal Health and Family Planning. Twenty-one month programs in Care of Handicapped Children, Comprehensive Health Care and Perinatology are also available.

Applications are now being accepted for the group entering September, 1975. For information, write to Helen M. Wallace, M.D., School of Public Health, University of California, Berkeley, California 94720.

Schedule for Upcoming CME Programs

June 3-16 **GOOD TENNIS IS GOOD MEDICINE**, with Robert Nirschl, M.D., Chief Orthopedic Surgery, Northern Virginia Doctors Hospital; Attending Orthopedic Surgeon, Arlington Hospital; Chairman, Committee on Medical Aspects of Sports of the Medical Society of Virginia; Clinical Instructor in Orthopedic Surgery, Georgetown University School of Medicine, Washington, D.C.

EMERGENCY TRANSVENOUS CARDIAC PACING, with Doris J. W. Escher, M.D., Attending Physician, Department of Medicine, Cardiology Division; Physician-in-Charge, Cardiac Catheterization Unit, Montefiore Hospital and Medical Center, Bronx, New York.

SCANNING THE BRAIN IN CROSS SECTION, with Paul Frederick New, M.D., Chief of Neuroradiology, Massachusetts General Hospital; and Assistant Professor of Radiology, Harvard Medical School, Massachusetts.

June 17-14 **LICE, MITES, AND MAN**, with Silas O'Quinn, M.D., Dermatologist and Dean of Medicine; and Harold Trapido, M.D., Professor of Tropical Medicine and Medical Parasitology; both of Louisiana State University Medical Center, New Orleans.

ULTRASONIC IMAGING: ECHOES WITH ANSWERS, with Barry Goldberg, M.D., Assistant Professor of Radiology, Temple University Health Sciences Center; and Head, Section of Diagnostic Ultrasound, Episcopal Hospital, Philadelphia.

LONG-TERM PACEMAKER THERAPY, with Doris J. W. Escher, M.D., Attending Physician, Department of Medicine, Cardiology Division and Physician-In-Charge, Cardiac Catheterization Unit; and Seymour Furman, M.D., Associate Attending Surgeon, Department of Cardiothoracic Surgery; both of Montefiore Hospital and Medical Center, New York.

For more information about NCME write The Network for Continuing Medical Education, 15 Columbus Circle, New York, New York 10023.

PAS and MAP Tutorial Sessions*

These two-day sessions teach representatives from *member hospitals* how to do medical audit studies using their own PAS system reports. PSRO health care legislation and the way CPHA resources can help both hospitals and PSROs are presented.

10-11 July 1974

7-8 August 1974

11-12 September 1974

2-3 October 1974

6-7 November 1974

11-12 December 1974

PAS and MAP Institutes*

PAS and MAP Institutes are held for *nonmember hospitals and health care organizations* to present a comprehensive review of the various CPHA programs. The Institutes emphasize applications to the PSRO portion of PL 92-603.

5 September 1974

5 December 1974

PAS and MAP Regional Workshops*

Regional workshops, open to both *member and nonmember hospitals and health care organizations*, teach how to do medical audit studies, using sample PAS and MAP reports. CPHA resources to help hospitals and PSROs are discussed.

16 July 1974 —Saint John, New Brunswick, Canada

18 July 1974 —Albany, New York

27 August 1974 —Edmonton, Alberta, Canada

29 August 1974 —Denver, Colorado

26 September 1974—Washington, D.C.

8 October 1974 —Vancouver, British Columbia, Canada

11 October 1974 —Honolulu, Hawaii

12 November 1974—Charlotte, North Carolina

14 November 1974—New Orleans, Louisiana

17 December 1974—Oklahoma City, Oklahoma

Course In Techniques for the Health Record Analyst

The health record analyst's role as an expert in *how* to evaluate the quality of patient care is explored in detail in these intensified sessions. They are open to *member and nonmember hospitals* and health care organizations. The PAS system reports are used to teach the techniques of health record analysis.

29 July—2 August 1974

12-16 August 1974

16-20 September 1974

7-11 October 1974

11-15 November 1974

16-20 December 1974

Coding and Abstracting Institutes

Open to *all medical record personnel using H-ICDA*, these one-day sessions are designed to review the basic principles of H-ICDA coding. Methods of PAS abstracting are also discussed.

16-18 July 1974 —Edmonton, Alberta, Canada

13-15 August 1974 —Seattle, Washington

17-19 September 1974—Boston, Massachusetts

8-10 October 1974 —Chicago, Illinois

19-21 November 1974—Los Angeles, California

3- 5 December 1974—St. Louis, Missouri

"Progress Against Cancer": Film From National Institutes of Health

"Progress Against Cancer" is a 57-minute color film that illustrates how modern research has solved many of the disease's mysteries thus greatly improving the victim's chances to survive. John Wayne, Dionne Warwick, Ann Baxter, Marlo Thomas and Gregory Peck head up the large cast of individuals in the film. Sponsored by the National Institutes of Health, the film is available for free-loan from Association-Sterling Films, 866 Third Avenue, New York 10022.

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Symposium on Thyroid Disease

Presented Before the Semi-Annual Meeting of the Middle Tennessee Medical Association, Hendersonville, Tenn., May 17, 1973

Surgical Management of Hyperthyroidism: Current Indications And Results

CHARLES E. MARTIN, M.D. AND JOHN L. SAWYERS, M.D.

Thyroidectomy was the only mode of therapy for hyperthyroidism from 1895 when introduced by Kocher until the introduction of radioactive iodine in 1942. Subsequent discovery of the antithyroid effects of thiouracil derivatives provided a third method of therapy. Although the efficacy of each modality is accepted, controversy exists regarding the selection of therapy.

Antithyroid drugs may effect an euthyroid state after several weeks of therapy. However, symptoms usually return when the drugs are discontinued. Skin reactions and blood dyscrasias are not uncommon. Radioactive iodine (^{131}I) will abolish the hyperthyroid state. However, this may require weeks or months. Although fear of late carcinogenesis from ^{131}I remains unfounded, radioactive iodine is seldom recommended for children or women in the childbearing age group. It cannot be used during pregnancy. The incidence of hypothyroidism is high after treatment with ^{131}I , approaching 80 percent at 15 years in one recent study.¹

Subtotal thyroidectomy dependably and quickly achieves the goal of euthyroidism, but at the cost

of hospitalization and the risks and discomfort of an operative procedure. The impressive list of possible operative complications has been well publicized by advocates of nonoperative therapy. However, the complications of therapeutic failure and hypothyroidism are less frequent after thyroidectomy than other forms of therapy.² Preoperative preparation with antithyroid drugs to achieve an euthyroid state and the addition of Lugol's iodine solution have eliminated the complication of thyroid storm. Refinements in operative technic have reduced the incidence of recurrent laryngeal nerve injury to less than 0.5 percent.^{3,4,5} Increasing operative experience with parathyroid glands and greater facility in their identification may be responsible for the decreasing incidence of hypoparathyroidism.⁶ The present mortality rate in patients operated upon by an experienced surgeon is less than 0.2 percent and no deaths have occurred in several large series.^{5,7,8}

Factors influencing choice of therapy for hyperthyroidism include the patient's age, sex, gland size, severity of disease and response to antithyroid drugs. The patient's dependability in taking medications and his availability for long-term follow-up should be considered. The availability of treatment modalities will be a consideration for some practitioners. The following

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discussion categorizes patients who are suitable for surgical management.

INDICATIONS FOR SURGICAL MANAGEMENT

Antithyroid drugs have found their place in preoperative preparation of the hyperthyroid patient and in effecting early control in the patient for whom ^{131}I is chosen. As the incidence of recurrent symptoms after even long-term treatment is greater than 50 percent, these drugs are not considered a definitive mode of treatment except in selected children. The physician's choice of treatment is between subtotal thyroidectomy and ^{131}I .

The following groups of patients are considered candidates for surgical management: 1) Adults under 40 years of age with diffuse thyroid enlargement. ^{131}I may be substituted in some of these patients who cannot be rendered euthyroid in a reasonable period of time. Operative management is particularly applicable in women of this age group; 2) Adults of any age with nodular goiters and hyperthyroidism in whom coexistent neoplasm cannot be ruled out; 3) The pregnant patient. Here rapid return to the euthyroid state is necessary to avoid transient hyperthyroidism of the newborn. ^{131}I cannot be given and antithyroid drugs potentially induce hypothyroidism in the fetus (cretinism). Subtotal thyroidectomy is recommended if an euthyroid state can be achieved in the second or early third trimester using modest doses of antithyroid drugs; 4) The child with recurrent symptoms after antithyroid drugs; 5) The patient with associated disease, cardiac or other, in whom certain, rapid control is desirable⁹

Because of the increased technical difficulties that could result in recurrent laryngeal nerve injury and/or hypoparathyroidism, operation is contraindicated in patients who have had previous thyroid surgical procedures. ^{131}I is recommended for adults and prolonged antithyroid drug management for children of this group.

PREOPERATIVE AND OPERATIVE MANAGEMENT

Preoperative preparation with antithyroid drugs is indicated to achieve an euthyroid state. Operation upon a toxic patient is rarely justified. Although partial thyroidectomy may safely be performed on the mildly toxic patient after a short course of iodine alone, the usual patient

will require a three to six week course of antithyroid drugs. Subjective symptomatic improvement, pulse rate, weight gain and decrease in gland size are reference points. When the patient is clinically euthyroid, Lugol's solution is added and operation scheduled for 7 to 10 days later. Preoperatively a baseline serum calcium and phosphorus should be determined. Because 10 percent of normal individuals have a positive Chvostek's sign, this should be looked for. Vocal cord position and function are documented by indirect laryngoscopy.

The operative procedure is performed under general endotracheal anesthesia. A low, transverse collar incision is made and skin flaps elevated. The strap muscles are retracted laterally, or divided, to provide adequate exposure. The entire thyroid gland is then examined. After the middle thyroid vein is divided, the thyroid lobe is retracted medially to expose the inferior thyroid artery. This artery is identified as a landmark for localization of the recurrent laryngeal nerve but should not be divided as this may increase the incidence of hypoparathyroidism. The recurrent nerve is identified in the tracheoesophageal groove under the artery and traced until it enters the cricothyroid membrane. The suspensory ligament of the thyroid is incised and the upper pole freed from the trachea by blunt dissection. The superior laryngeal nerve should be identified and protected as the upper pole vessels are doubly clamped, divided and ligated.

Care is taken not to disturb the parathyroid glands, usually visible high posteriorly on the upper pole and at the bifurcation of the inferior thyroid artery. The lobe is excised leaving 2 to 4 grams of tissue on the lateral trachea wall just medial to the inferior thyroid artery. The same procedure is accomplished on the opposite side. After meticulous hemostasis is accomplished, suction catheters are placed, the strap muscles reapproximated if divided, and the skin closed. Suction catheter drainage obviates the traditional bulky neck dressing. The patient may have a liquid diet the evening of the procedure. Suction catheters are usually removed and serum calcium and phosphorus checked on the first postoperative day. One half of the skin sutures are removed on the second day, and the patient discharged on the third postoperative day following removal of the remaining skin sutures. The recuperation period extends an additional 10 to 14 days.

The patient should be examined and thyroid

function tests evaluated at periodic intervals. The development of hypothyroidism is very unlikely after three years following the subtotal thyroidectomy.

RESULTS OF SURGICAL TREATMENT

All patients with hyperthyroidism treated by subtotal thyroidectomy at the Vanderbilt University Hospital, Nashville Metropolitan General Hospital, and St. Thomas Hospital between 1960 and 1970 have recently been evaluated.⁵ Follow-up studies averaging 6.7 years are available on 75 percent of the 254 patients. Preoperative preparation included antithyroid drugs and iodine in 65 percent but iodine alone was used in 19 percent and 9 percent were operated upon with no preoperative preparation.

TABLE 1
POSTOPERATIVE COMPLICATIONS FOLLOWING
THYROIDECTOMY FOR HYPERTHYROIDISM
IN 254 PATIENTS

Mortality	0 %
Thyroid Storm	0 %
Minor Wound Infections	3 %
Temporary Tracheostomy	0.4%
Recurrent Nerve Injury	0.4%
Hypoparathyroidism	1.9%

Immediate complications are tabulated in Table 1. There were no operative deaths. Also there were no deaths in a previous study of thyroidectomy for hyperthyroidism from these hospitals. The combined series span a 30 year period. Thyroid storm did not occur in this study. Complications included seven minor wound problems, and in one patient a temporary tracheostomy was performed because of hematoma. Although some temporary voice change was reported by 14 patients, only one patient had evidence of recurrent laryngeal nerve injury and this patient was asymptomatic after six months. Sixteen patients received calcium supplement while in the hospital but only seven patients were discharged on oral calcium. On follow-up evaluation only three patients were found to require daily calcium and two other patients took occasional calcium supplement. The incidence of hypoparathyroidism was 1.9 percent.

Recurrent hyperthyroidism occurred in eight patients (4.2 percent). These patients were treated with ¹³¹I. The incidence of postoperative hypothyroidism could not be accurately determined from this study because many patients were given thyroid supplement postoperatively

on a routine basis. Other patients had been given thyroid supplement because of various minor complaints without documentation of hypothyroidism. The incidence of postoperative hypothyroidism after operation in other studies has ranged from 25 to 43 percent.^{6,10}

SUMMARY

This retrospective study supports continued use of subtotal thyroidectomy for hyperthyroidism. Operation is accomplished with an increasingly low rate of complications because of improved preoperative preparation, anesthesia, and operative technic. The surgeon no longer needs to operate upon the thyrotoxic patient with the risk of storm and death. He need no longer operate upon the greatly enlarged, vascular friable gland which predisposed to recurrent laryngeal nerve injury, hematoma, and inadvertent parathyroid excision. When operation is chosen today, the referring physician may reasonably assume that his well-prepared euthyroid patient can expect a short hospital stay, minimal discomfort, rapid cure of his disease, and a cosmetic improvement with minimal chance of complications.

REFERENCES

1. Douglas, JG: The Vanderbilt Experience with ¹³¹I Treatment for Graves' Disease. *Southern Med J*, 66:92, 1973.
2. Dunn, JT, and Chapman, EM: Rising Incidence of Hypothyroidism after Radioactive Iodine Therapy in Thyrotoxicosis. *New Eng J Med*, 271:1037, 1964.
3. Lahey, FH: Routine Dissection and Demonstration of the Recurrent Laryngeal Nerve in Subtotal Thyroidectomy. *Surg Gynec Obstet*, 66:775, 1938.
4. Freeman, GC: Complications of Thyroid Surgery: Current Concepts of Prevention and Treatment. *Surg Clin N Amer*, 50:409, 1970.
5. Sawyers, JL, Martin, CE, Byrd, BF, Jr, and Rosenfeld, L: Thyroidectomy for Hyperthyroidism. *Ann Surg*, 175:939, 1972.
6. Beahrs, OH, and Sakulsky, SB: Surgical Thyroidectomy in Management of Exophthalmic Goiter. *Arc Surg*, 96:612, 1968.
7. Colcock, B, and King, M: Mortality and Morbidity of Thyroid Surgery. *Surg Gynec Obstet*, 114:131, 1962.
8. Gould, EA, Hirsch, E, and Brecher, I: Complications Arising in the Course of Thyroidectomy. *Arc Surg*, 90:81, 1965.
9. Thomas, CG, Jr: *The Thyroid: A Fundamental and Clinical Text*. Editors, Werner, SC and Ingbar, SH, 3rd Edition, 1971, Harper and Row, New York, pp 692-693.
10. Olsen, WR, Nishiyama, RH, and Graber, LW: Thyroidectomy for Hyperthyroidism. *Arch Surg*, 101: 175, 1970.

The Treatment of Hyperthyroidism With Radioactive Iodine

ROBERT L. BELL, M.D.

Hyperthyroidism is no longer defined purely by the classical descriptive relationships that we recognize as Graves' disease or as Plummer's disease. Now, a listing of etiologies of hyperthyroidism would include Graves' disease, toxic multinodular goiter, toxic uninodular goiter, T3 toxicosis,¹ subacute thyroiditis,² Jodbasedow's disease,³ factitia,⁴ choriocarcinoma,⁵ hydatidiform mole,⁶ struma ovarii, TSH producing pituitary tumor,⁷ increased TRH secretion by the hypothalamus,⁸ and thyroid cancer with functioning metastases. Although the lion's share of newly diagnosed cases of hyperthyroidism present as classical Graves' disease, these other etiologies of hyperthyroidism must be kept in mind. The best treatment of Graves' disease is that which offers relief in a reasonable length of time with a high remission rate and low exacerbation rate, offers the least economic loss to the patient or third party payer, and carries the least hazard of any therapeutic modality. Radioactive iodine appears to be that treatment.^{9,10}

Prior to 1964, Graves' disease was commonly treated with 7 to 12 millicuries of ¹³¹I. The remission rate approached 95 percent, but the complication of long term hypothyroidism was recognized with almost 40 percent of the patients becoming hypothyroid in the first year, and subsequent hypothyroidism accumulating at a rate of approximately 3 percent per year with no leveling off.¹¹ Subsequently, several groups used two to four millicuries of ¹³¹I for a therapeutic dose.^{9,12} This resulted in only 7 percent of the patients becoming hypothyroid in the first year, and a subsequent cumulative rate of hypothyroidism of between two and three percent per year. This would lead to 49 percent of the patient becoming hypothyroid by the time 17 years had elapsed. This is essentially identical to the rate noted after surgery for hyperthyroidism. Unfortunately, the remission rate also dropped so that it took longer to achieve a euthyroid state.

At one extreme workers treat with two to three millicuries of ¹³¹I plus stable iodine, while at the

other extreme, several workers treat with 9 millicuries of ¹³¹I, making almost all the patients hypothyroid and immediately starting thyroid replacement therapy.¹⁰

Most physicians in nuclear medicine treat with a dose of between 3 and 9 millicuries of ¹³¹I (usually five to six millicuries), accepting this as the best compromise between these two therapeutic approaches. (Table 1) While larger doses are administered if the gland is big, generally, efforts to titrate dose against estimated gland size and activity are temporized because of the inherent vagaries of such estimates. A response pattern to this therapy demonstrates that most patients are controlled within two months and if re-treatment is necessary, it usually is done within two to three months after the time of initial therapy. Although this mode of therapy with this response pattern approaches a 92 percent remission rate and an 8 percent exacerbation rate, the residual problems which are disease related, such as orbital changes, the integumentary changes and the skeletal changes usually respond in a pattern that is almost independent of the remission of the hypermetabolic state.¹⁰

The acute complications of ¹³¹I therapy of Graves' disease are quite rare. Thyroiditis occasionally develops within the first two to five days and is transient and minimal. In Graves' disease a transient release of stored hormones which could induce exacerbation of congestive heart failure or arrhythmia is almost never seen.¹³ This complication arises principally in the treatment of toxic multinodular goiter.¹⁴ Delayed complications include hypothyroidism (which has already been discussed), hypoparathyroidism, and development of nodules. At the present time three cases have been reported of hypoparathyroidism developing after ¹³¹I therapy for hyperthyroidism.¹⁰ Since over 50,000 cases have been treated, this complication of hypoparathyroidism is so infrequent as to probably be considered an independently occurring disease entity rather than a disease secondary to the therapy.

Although the first reports of the use of radioactive iodine for treatment of hyperthyroidism

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were published in 1946, its use was limited principally to the older person because of fears of cancer or leukemia being induced by the radioactivity.¹⁵ These fears have proved to be illusory. A survey in 1967,¹⁶ showed that in 22,000 patients treated with ¹³¹I and 14,000 patients treated with drugs or surgery, the incidence of leukemia did not differ between the two groups. A second report delivered at the meeting of the American Medical Association in 1969,¹⁷ stated that the preliminary analyses of almost 50,000 cases indicates that the incidence of thyroid cancer is not different in those treated by thyroidectomy and those treated with radioactive iodine.

In part because of these reports allaying the fears of cancer and leukemia and in part because of some failures with both surgery and antithyroid drugs for the treatment of hyperthyroidism, there has been a general lowering of the age limits for the treatment of hyperthyroidism with radioactive iodine. Now, there are many large centers in the United States where children with hyperthyroidism are preferentially treated with radioactive iodine.¹⁸ The possible genetic damage that could theoretically accrue as a result of radioactive therapy has been calculated to be miniscule.^{19,20} The conclusion of the atomic bomb casualty commission²¹ that there were no demonstrable increases in congenital anomalies, stillbirths, or infant mortality in persons born of parents exposed to very great radiation dosage (much greater than that present from doses of ¹³¹I given in the treatment of hyperthyroidism) also suggest that the genetic problems may be miniscule.

Since children were generally not treated with ¹³¹I for hyperthyroidism prior to the last 10 years, another 20 years may elapse before the question of long term danger, either in terms of carcinoma or genetic damage, can be answered on the basis of experience rather than on the basis of unconfirmed predictions. Despite the 1969 AMA report referred to previously, the fact that 14 documented cases of thyroid cancer after ¹³¹I therapy have reached the literature still requires some caution. Perhaps treatment with enough radioiodine to produce a rapid one dose cure would be preferable to a low dose of ¹³¹I which could cause radiation damage without sterilization of follicular cells.²²

While radioactive iodine is clearly the therapy of choice for Graves' disease (even in younger patients) the use of radioactive iodine for therapy of the toxic multinodular or uninodular goiter

presents an entirely different problem.²³ Although these two entities can be treated with radioactive iodine provided there is some suppression of the tissue that is not autonomous,^{24,25} transient release of thyroid hormone may induce symptoms of thyroid storm in the very large multinodular toxic goiter treated with radioiodine therapy.¹⁴ These toxic nodules generally require much larger doses of radioiodine than is commonly used for classical Graves' disease and may either require fractional administration of radioisotopes or concomitant use of antithyroid drugs and iodides.^{25,13} In general, surgery remains the treatment of choice for large toxic multinodular goiters, after proper preparation by medical means including radioactive iodine.

Radioactive iodine therapy for hyperthyroidism is contraindicated in pregnancy and generally is not used in children below five years of age.

Finally, a word should be said about the comparative cost of therapy of hyperthyroidism. A recent estimate published in the Mayo Clinic proceedings for the cost of surgical therapy of hyperthyroidism included one week in the hospital and a total of two weeks out of work, resulting in a total cost to the patient or third party payer of an estimated \$1700.00, which is between four and ten times as costly as radioactive iodine therapy of the thyroid gland in Graves' disease.¹⁰

TABLE 1
¹³¹IODINE THERAPY OF GRAVES' DISEASE

<i>Dose</i>	<i>% Remission (1 dose)</i>	<i>% Hypothyroid After 1 Year</i>
7-12 mc	95-98%	40%
4-6 mc	90-95%	20%
2-4 mc	70-80%	7%

Rate of hypothyroidism after the first year is about 2%/year cumulative.

Orbital and skin changes: response is almost independent of remission.

REFERENCES

1. Sterling, K, Refetoff, S, Selenkow, HA: T3 Thyrotoxicosis: Thyrotoxicosis Due to Elevated Serum Triiodothyronine Levels. *JAMA*, 213:571, 1970.
2. Sheet, RF: The Sequential Occurrence of Acute Thyroiditis and Thyrotoxicosis. *JAMA*, 157:139, 1955.
3. Vagenakis, A, et al: Iodine-Induced Thyrotoxicosis in Boston. *New Eng J Med*, 287:523, 1972.
4. Rose, E, Sanders, TP, Webb, WL, Hines, RC: Occult Factitial Thyrotoxicosis. *Annals of Int Med*, 71:309, 1969.

5. Winand, R, Bates, R, Becker, CE, et al: Unusual Thyroid Stimulating Activity in the Plasma of a Man with Choriocarcinoma. *J Clin Endocr*, 29:1369, 1965.
6. Hershman, JM, Higgins, HP: Hydatidiform Mole—A Course of Clinical Hyperthyroidism. *New Eng J Med*, 284:573, 1971.
7. Hamilton, CR, Jr, Adams, LC, Maloof, F: Hyperthyroidism Due to Thyrotropin Producing Pituitary Chromophobe Adenoma. *New Eng J Med*, 283:1077, 1970.
8. Emerson, CH, Utiger, RD: Hyperthyroidism and Excessive Thyrotropin Secretions. *New Eng J Med*, 287:328, 1972.
9. Chapman, EM: The Choice of Treatment for Hyperthyroidism. *Missouri Medicine*, 68:21, 1971.
10. Goldsmith, RE: Radioiodine Therapy for Hyperthyroidism. *Mayo Clin Proceedings*, 47:953, 1972.
11. Nofal, MM, Beierwaltes, WH, Patno, ME: Treatment of Hyperthyroidism with I-131, A 16-Year Experience. *JAMA*, 197:608, 1966.
12. Glennon, JA, Gordon, ES, Sarvin, CT: Hypothyroidism After Low-Dose I-131 Treatment of Hyperthyroidism. *Ann Int Med*, 76:721, 1972.
13. DeGroot, LJ: Thyroid and the Heart. *Mayo Clinic Proceedings*, 47:864, 1972.
14. Maloof, F, Chapman, EM: Responses to Radioiodine Therapy in Hyperthyroidism with Special Reference to Cardiac Problems. *J Clin Endocrin Metab*, 11:1296, 1951.
15. Duffy, BJ, Jr, Fitzgerald, PJ: Thyroid Cancer in Childhood and Adolescence: A Report On 28 Cases. *Cancer*, 14:734, 1961.
16. Saenger, EL, Thoma, GE, Tompkins, EA: Incidence of Leukemia Following Treatment of Hyperthyroidism. *JAMA*, 205:855, 1968.
17. Sheline, GL, et al: Incidence of Thyroid Carcinoma in Patients Treated for Hyperthyroidism Program. 118th Annual Convention AMA, New York City, July 1969, p 154.
18. Hayek, A, Chapman, EM, Crawford, JD: Long Term Results of Treatment of Thyrotoxicosis in Children and Adolescents with Radioactive Iodine. *New Eng J Med*, 283:949, 1970.
19. Means, JH, DeGroot, LJ, Stanbury, JB: *The Thyroid and Its Diseases*, 3rd Edition. McGraw-Hill, 1963, p 232.
20. Starr, P, Jaffe, HL, Oettinger, LJ: Later Results of ¹³¹I Treatment of Hyperthyroidism in 73 Children and Adolescents; 1967, A Late Follow-Up. *J Nuc Med*, 10:586, 1969.
21. Hollingsworth, JW: Delayed Radiation Effects in Survivors of the Atomic Bombings. *New Eng J Med*, 263:481, 1960.
22. McDougall, IE: Thyroid Cancer after I-131 Therapy. *JAMA*, 227:439, 1974.
23. Welch, CE: Therapy for Multinodular Goiter. *JAMA*, 195:339, 1966.
24. Harst, W, Rosler, H, Schneider, C, Labhart, A: 306 Cases of Toxic Adenoma: Clinical Aspects, Findings in Radioiodine Diagnostics, Radiochromatography and Histology: Results of ¹³¹I and Surgical Treatment. *J Nuc Med*, 8:515, 1967.
25. Miller, JM: Radioiodine Therapy of the Autonomous Functioning Thyroid. *Seminars Nuc Med*, 1:432, 1971.

* * * * *

Discussion

GEORGE W. HOLCOMB, M.D.

In managing children with thyrotoxicosis, I believe the treatment should be individualized depending upon the severity of the disease and family situation, rather than rigid adherence to either medical or surgical management. The potential hazards of radio-iodine therapy are the induction of thyroid cancer, leukemia, genetic damage and permanent hypothyroidism in a large percentage of cases.

For the younger child with mild, early symptoms, medical therapy with anti-thyroid drugs is probably indicated. However, as reported from the Mayo Clinic,¹ Massachusetts General Hospital,² and University of Michigan,³ the treatment of juvenile hyperthyroidism with anti-thyroid drugs has not proved as effective as has been reported in adults. If the goiter is large or the disease severe or the family uncooperative and the chance of a prolonged follow-up poor, the decision is

best made for thyroidectomy following a period of preoperative preparation with anti-thyroid drugs. The youngest patient I have treated in this manner was four years of age. She was very toxic, with an initial PBI of 16. For the past 10 years growth and development have been normal.

Therefore, I think the indications for thyroidectomy are greater when dealing with the childhood group than with adults since the latter group may be treated more safely with radio-iodine therapy.

REFERENCES

1. Hayles, AB, et al: Treatment of Hyperthyroidism (Graves' Disease) in Children. *Pediat Digest*, 35, November, 1967.
2. Arnold, MB, Talbot, NB, and Cope, O: Concerning the Choice of Therapy for Childhood Hyperthyroidism. *Pediatrics*, 47:52, January, 1958.
3. Tank, ES, Bacon, GE, and Lowrey, GH: Surgical Management of Thyrotoxicosis in Children. *J Pediatr Surg*, 4:1, 142-146, February, 1969.

T3 toxicosis is a relatively unusual form of hyperthyroidism, characterized by an excess of triiodothyronine (T3). It has been known for many years that the thyroid gland synthesizes and secretes into the blood two active hormones, thyroxin T4 and triiodothyronine T3. In normal subjects the concentration of T4 is roughly 20 to 60 times greater than that of T3. Since the concentration of T4 is so much higher than that of T3, until recently most measurements of circulating thyroid hormones were based on T4. Estimates of circulating total T4 have improved progressively. The familiar PBI (protein-bound-iodine) could be altered by exogenous iodides in serum. This artefact was decreased, but not eliminated, by the advent of the CT4 (column thyroxin).

More recently, the technique of measurement by competitive-protein-binding T4 has virtually eliminated the artefacts caused by exogenous iodide contamination. However, since only about 1/1000 of the total circulating thyroxin exists unbound in the plasma, and the majority is bound to plasma proteins, alterations of thyroxin-binding-proteins influence the PBI, CT4 and T4 tests. The most common alteration, an increase in thyroxin-binding-globulin (TBG) induced by estrogens in oral contraceptive compounds, results in elevation of the PBI, CT4 and T4 tests, though unbound, free thyroxin remains normal. Clinical estimates of free thyroxin levels are achieved by ordering a "free thyroxin index" or "T7" determination, which is the mathematical product derived from multiplying the total T4 level by the T3 resin uptake, an inverse index of thyroxin-binding effect.¹ Thus, in an euthyroid patient treated with estrogen, the total T4 would be elevated, the T3 resin uptake would be reduced, but the "free thyroxin index" would be normal.

T3 can be measured in serum radioimmunoassay.^{2,3} In most cases of hyperthyroidism, both T4 and T3 levels are elevated above the normal ranges. However, in certain unusual cases of thyrotoxicosis, the serum T4 levels are within normal ranges, but only the T3 values are elevated.^{4,5,6} Brief case histories illustrating this syndrome are the subjects of this report. Case #1 is a definite example of T3 toxicosis, while the diagnosis in Case #2 should be termed probable.

Case #1:

B.M., a 40-year-old Caucasian woman, a nurse, had clinical hyperthyroidism of three years' duration. She had been treated with antithyroid drugs with good response twice, but after each course of therapy she had relapsed and again developed clinical thyrotoxicosis.

Examination revealed tachycardia, lid lag, sweating and tremor. The thyroid gland was approximately twice normal size. The 24 hour radioiodine uptake was 50%. Surprisingly, laboratory data showed normal values for total and free thyroxin (T4). The column thyroxin (CT4) value was 5.8 mcgm/100 ml (normal: 3.0-6.5); measurement of total thyroxin (T4) by competitive protein-binding (Murphy-Pattee technique) was likewise normal. The "free thyroxin index" (FT4 index) was 2.3 ng/100 ml (normal: 0.9-2.6). The serum triiodothyronine was elevated, 147 ng/100 ml (normal: 50-125 by method employed at that time).

Since the patient had typical clinical hyperthyroidism with diffuse goiter and elevated radioiodine uptake, it was felt that the thyrotoxicosis was due to an excess of triiodothyronine only. She was treated with radioactive iodine, became euthyroid and did not relapse.

Case #2:

K.F., a 17-year-old woman, had easy fatigability, 25-pound weight loss despite a good appetite, episodic nervousness, and palpitation. She had been aware of a goiter for several years. She had been taking oral contraceptives for two years.

Examination revealed a thin woman with no tremor, lid lag, sweating or tachycardia. The thyroid gland was approximately three times normal size, and a bruit was present over it. Two discrete nodules were palpated in the thyroid. The larger, in the left lobe, measured almost 5.0 cm in diameter; the smaller nodule, in the right lobe, was about 2.0 cm.

Measurements of the total thyroxin by either the CT4 or competitive protein-binding technique were not performed, since the elevation in thyroxin-binding-globulin induced by the oral contraceptives would have probably resulted in elevated values, and therefore no clinically useful data. The "free thyroxin index" (FT4 index) was 1.4 ng/100 ml (normal: 0.9-2.6). The serum T3 was elevated, 261 ng/100 ml (normal: 60-190 by method employed at that time). Since estrogen-induced increase in TBG might also result in elevated T3 levels, other indices of abnormal thyroid function were sought. The 24-hour radioiodine uptake was 34%, and the thyroid scan (Figure 1) showed two hyperfunctioning nodules, corresponding to the palpable nodules. After the patient received oral triiodothyronine (100 mcg/day for 7 days for Cytomel suppression test), repeat 24-hour radioiodine uptake was 17.5%, but the same two hyperfunctioning nodules were unchanged in appearance, indicating that they were operating autonomously (Fig. 2).

It was felt that this patient probably had toxic nodular goiter with the autonomous thyroid nodules secreting an excess of T3 only. After week-long suppression with Cytomel (75 mcg/day) to suppress the remaining



FIG. 1: Thyroid scan demonstrating two hyperfunctioning nodules in Case #2.

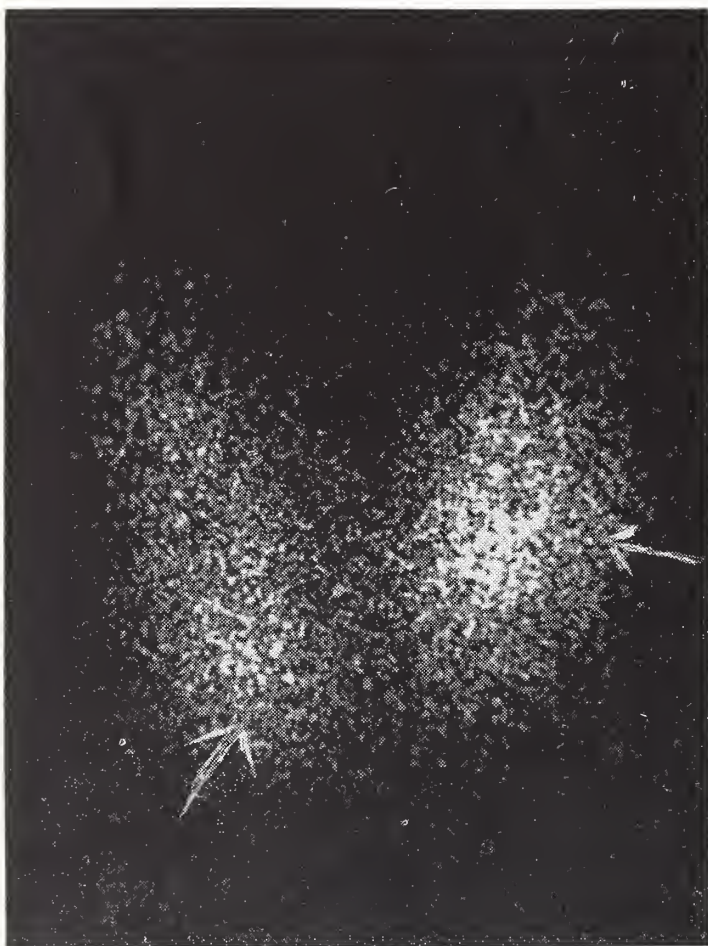


FIG. 2: Thyroid scan after Cytomel suppression test in Case #2, demonstrating that nodules are autonomous.

thyroid tissue, she was treated with 8 millicuries radioactive iodine ^{131}I in an effort to ablate the two autonomous nodules. Re-evaluation 4 months later revealed

no significant change in the size of the thyroid nodules. The FT4 index was 1.8 mg/100 ml (normal: 0.9-2.6). The serum T3 level was now normal, 145 ng/100 ml (normal: 60-190). The 24-hour radioiodine uptake was 20%, and after the 7-day Cytomel suppression test fell to 7%. Thyroid scan showed that most of the activity was still located in the nodules, indicating that they were still autonomous, but hypersecretion of T3 was no longer present. The diagnosis of "probable" T3-toxicosis was made here because the elevated serum T3 value might have been at least partly due to estrogen-induced increase in thyroxin-binding proteins in serum. The effect of TBG on in vivo binding of T3 and on the T3 radioimmunoassay is controversial, but it is probably less than the effect on T4.³

The diagnosis of T3-toxicosis should be suspected in a patient exhibiting clinical signs and symptoms of hyperthyroidism, accompanied by enlargement of the thyroid gland, with normal measurements of total T4 and/or FTI. The radioiodine uptake is elevated and shows resistance to suppression, indicating some degree of autonomy of thyroid function. Measurements of TBG should be normal (or elevated if patient has been taking estrogen treatment), since decreased levels of TBG could result in low or normal levels of total T4, while free unbound thyroxin was elevated. In both these cases, estimates of free thyroxin by "free thyroxin index" were normal. When patients fulfilling these criteria are identified, measurements of serum T3 by radioimmunoassay are indicated.

Clinical features of T3-toxicosis are no different from the more common forms of hyperthyroidism in which T4 is also elevated. T3-toxicosis has been documented in patients with diffuse toxic goiter (Graves' disease), toxic nodular goiter, and multinodular goiters. The treatment is the same as treatment of typical hyperthyroidism. The main clinical importance of T3-toxicosis lies in the difficulty of establishing the diagnosis by readily available laboratory procedures. The cause of T3-toxicosis is not known. However, elevated T3/T4 ratios may also be encountered in instances of low iodine intake, limited thyroid reserve (e.g. post-sub-total thyroidectomy, post-radioiodine treatment, and Hashimoto's thyroiditis), during or after a course of antithyroid drug treatment for hyperthyroidism, and in some cases of hypothyroidism.³ Therefore, it is possible that preferential secretion of T3 might result when intrathyroidal hormone synthesis is functioning as though it were trying to conserve a limited supply of iodine.

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Hospital Governing Board and Medical Staff Relationships

BETTY JANE ANDERSON, J.D., Chicago, Illinois

During the past few years, the number of disputes between hospital governing boards and organized medical staffs has been increasing at an alarming rate. The basic issue in these disputes is relatively simple: are hospitals or physicians primarily responsible for the care and treatment of patients? Will the patient of tomorrow look to a particular physician to guide his treatment from sickness back to health or will he look to a hospital?

The hue, cry and concern about the corporate practice of medicine is not a new battle cry. Resolutions of the American Medical Association House of Delegates have deplored the corporate practice of medicine in the United States practically since the founding of the AMA. The present ramifications of corporate practice of medicine, however, are different and more sophisticated than ever before.

In the past, laymen seeking personal financial gain endeavored to hire physicians, exploit them and sell their services at a profit. Some proprietary hospitals operated for profit similarly hired physicians on a salary basis, sold their services and profited while perhaps providing poor services because only incompetent or inept physicians were tempted by the salary offers. Today, the threat of corporate practice involves many of the finest hospitals and teaching institutions in the United States; well-funded community hospitals and teaching hospitals allied to prestigious universities and medical schools. Consequently, the threat of the corporate practice of medicine to the interests of the patient and the physician is more real and more insidious than ever before.

When a university affiliated teaching hospital becomes more interested in treating individuals as teaching material than in treating them as patients, when research is given higher priority than success in treating individual patients, when staff physicians are subjected to constant

pressure to publish journal articles and obtain research grants, individualized patient care yields and the corporate spector—the image of the corporate giant versus the individual physician—becomes a matter of deep concern for practicing physicians. Teaching and research have their proper place, but the physician-patient relationship should be dominant. The corporate practice of medicine, or perhaps more correctly, the trend of hospitals to engage in the corporate treatment of patients is now spreading to non-teaching hospitals and is reported with increasing frequency in hospitals operated by religious organizations.

PATIENT CARE

If the medical care of patients is to remain the primary responsibility of physicians and not impersonal corporations, then it is mandatory that the organized medical staff of a hospital truly function as the name implies with emphasis on the word “organized.” The hospital medical staff is and should be more than a group of individual physicians who have some sort of relationship to the hospital and its governing board by virtue of the hospital privileges accorded them individually.

The individual medical staff physician has an obligation to the organized medical staff; the obligation to participate productively and responsibly. Likewise, the organized medical staff has a basic obligation to discipline its members so that together they may fulfill through self-government and self-direction the medical management of the hospital. If the medical staff defaults in this obligation, the governing board can be expected to react. When laymen alone attempt to make decisions which should only be made upon the recommendation of physicians, patient care can be expected to suffer and the concept of professionalism to deteriorate.

To provide for the best interests of patients and the physicians who serve patients, the governance of the hospital should function as a partnership between the governing board carrying out its responsibility for the business management operation and administration on the one hand and

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the organized medical staff carrying out its responsibility for the medical management of the hospital on the other hand.

The governing board of the hospital is entitled to an organized medical staff that governs the medical affairs of the hospital efficiently, economically, and in the best interests of the patients, the physicians and the institution. The medical staff should be well organized and exercise its self-governing prerogatives diligently and responsibly.

PHYSICIANS ON BOARDS

The governing board of a hospital is a lay board. It is a lay board even though some of its members may be physicians. Whether the governing board of the hospital is composed entirely of laymen or includes some or all physicians, neither the hospital nor the governing board as such is licensed to practice medicine. Only physicians are authorized legally to practice medicine. This brings us to the question of whether it is desirable, important or necessary for the governing board of a hospital to have physicians as members. There have been instances where governing boards have engaged in the practice of making medical decisions reflecting the views of physician board members.

A physician on the hospital governing board is there to act in a management capacity and not to make medical decisions. Some medical organizations, including the AMA, have advocated having at least one physician on the hospital governing board. This can work well if the purpose is to have a conduit for communication between the governing board and the medical staff. It can work well if the physicians so included are not engaged in making decisions that should emanate from the organized medical staff itself.

The physician member of a hospital governing board who does not serve as a conduit of communication and who does not sit as a representative of the medical staff often is responsible for engendering disputes between the governing board and the medical staff. This can occur if the governing board relies more on the physician member for medical input than on the organized medical staff. What is important is not whether a physician is on the governing board but whether two-way communication between the governing board and the medical staff is currently and intelligently maintained.

Ideally, a hospital's primary objective—that of providing high quality patient care services for

the community—can be achieved best if there is a close working relationship and effective cooperation between the two groups who share the responsibility for hospital operation: (1) the board of directors or trustees responsible for the business management, housekeeping and prudent use of the institution's resources to attain quality patient care; and (2) an organized staff of physicians practicing within the hospital and responsible for the methodology and implementation of the system under which the resources of the medical community are used to provide the best attainable quality of medical care and services.

In some hospitals, the governing board apparently suffers from the misconception that it is responsible for making medical decisions and exercising medical discretion in assuring high quality patient care. The governing board is a lay instrumentality of hospital management. The board is responsible to the community, to charitable donors, to governmental agencies that provide funds, but first and foremost to patients. The board is responsible for seeing to it that funds are spent wisely to bring together the best available facilities and services that budgetary considerations can provide for quality patient care.

The governing board's responsibility includes permitting only qualified, competent practitioners to use the hospital facilities. With respect to physicians, a lay board frequently can make negative judgments as to ethical, moral and medical competence to practice. For example, laymen are capable of determining that physicians with criminal records or those excluded from other hospitals because of medical malpractice or lack of reasonable cooperation with the nursing staff and the hospital administrator should not be permitted to practice in the hospital. With respect to medical evaluations, the fact-finding of medical competence or incompetence must be left to the physician's peers who have observed his performance and evaluated his ethical and professional credentials.

RESPONSIBILITY

It has often been said that the governing board of the hospital is legally and morally responsible for the quality of patient care within the institution. Unfortunately, these words have been misinterpreted—sometimes innocently and sometimes deliberately—with respect to physicians' services. In the case of salaried physicians, responsibility may mean that the hospital is liable in damages for their malpractice. Even with sal-

aried physicians, however, the courts are divided as to whether the hospital is or is not liable for their professional services.

In some of the states where hospitals have been held legally responsible for the negligence of salaried physicians, the courts have treated physicians serving as independent contractors when providing medical services in the hospital as if they were employees in cases where the hospital furnishes the services of the physician and the patient has no voice in his selection. Included in the category of physicians who are independent contractors for purposes of providing professional services in the hospital but employees for purposes of patient liability are anesthesiologists, pathologists, radiologists and physicians serving in the emergency department.

There is not one single reported case in which a hospital has been held legally responsible for the malpractice of an attending competent physician engaged in independent practice and selected by the patient.

DARLING CASE

Some hospital consultants, hospital administrators and their attorneys have spread an erroneous interpretation of the *Darling* case with such frequency that there seems to be a generally held opinion that the misinterpretation accurately reflects the law of the land. Nothing could be further from the truth. In the nine years since the *Darling* case was first tried, it has either been entirely rejected by other courts or narrowly construed.

Darling is an Illinois case and even in Illinois the case has been given a narrow construction. Some of those hospital administrators, governing boards and their attorneys who cite *Darling* as a precedent would have physicians believe that the hospital is jointly responsible for any act of malpractice they may commit in the delivery of medical services within the hospital. With this as a base, they say that if the hospital is responsible for the attending physician's mistakes, it has the right to supervise and direct his services. This is not what the *Darling* case holds.

Before a hospital can be held liable for the mistakes or negligence of an independent, attending physician, there must be some showing of negligence on the part of the hospital. The hospital must be proven negligent in its own right. Hospital negligence can be found, for example, if a physician of known incompetence is permit-

ted to continue practicing in the hospital or is granted privileges.

In the *Darling* case, the facts are basically simple. The services of the physician as described in the case clearly show negligence. Although the physician involved was not an employee of the hospital and was engaged in the independent practice of medicine, nevertheless, the services from which the negligence arose took place when he was on emergency call.

Darling, who received negligent care in the setting and followup treatment of a broken leg, did not select the physician. The physician was on emergency call and provided by the hospital. Insofar as the medical care delivered, a physician selected and provided by the hospital has status similar to one who is on a salary basis.

In essence, the court held the hospital responsible for the physician's negligent treatment: first, because his services were provided by the hospital, and secondly, because the facts of the case show and the court found that the nursing care was negligent. The nurses failed to call attention to what was obviously a gangrenous condition as evidenced by the continuing excruciating pain of the patient and the foul and putrid odor that filled the room.

The reported cases in the various states following *Darling* either have rejected the case as a precedent or have followed it as precedent for hospital liability for employee negligence.

The developing trend on the part of some hospital governing boards to attempt to exercise direction and supervision over staff physicians in reliance on the *Darling* case is widespread enough to be of grave concern. In some of these hospitals, such control is exercised by the governing board's appointing salaried department heads, salaried chiefs of staff and a medical staff executive committee of salaried physicians. The members of the attending staff then become subject to the direction of the salaried physicians. Under these circumstances, the medical staff is not self-governing and has no separate existence as a deliberate medical body.

DIVIDED LOYALTIES

When the chain of command and control stems from a lay governing board, there are influences which conflict with the physician's undivided loyalty to his patient. Salaried physicians in a line of command to the governing board have divided loyalties between the interests of the institution

and those of the patient which ideally should not be in conflict.

In some institutions, the situation has become so grave as to create a line of authority that goes from the attending staff to a salaried medical hierarchy which in turn is responsible to a hospital administrator—often styled as president of the hospital and frequently not only the chief hospital executive but the dominant voice on the hospital governing board. In institutions where the hospital administrator occupies the role of hospital president and chairman of the hospital governing board, the only line of communication between the governing board and the medical staff is through him. This is lay domination at its zenith and a trend that should be aborted as early as possible.

It is too late in time and not practical to turn back the clock and engage in a campaign against the salaried employment of physicians in hospitals. Quality care requires that the employment of salaried physicians in hospitals should be subject to the condition that the salaried physicians must obtain and continue their hospital privileges in the same manner as other attending physicians; that is, upon the recommendations of the organized medical staff following evaluation of their credentials. In the absence of any clear showing that the organized medical staff has abused its functions, its recommendations should be accepted by the governing board.

Physicians function best when they are self-governing, when they accept the supervision and direction of their peers' evaluations and are selected through democratic processes. Attending physicians who are salaried and depend only upon a lay governing board for their authority do not normally receive the respect of other physicians. Their position is given to them by laymen and not earned through medical achievement and recognition.

Unfortunately, medical democracy can only be achieved where the governing board is enlightened and follows the procedures recommended by the Joint Commission on Accreditation of Hospitals. The courts are not available under existing laws and judicial precedents to guarantee a medical staff self-governance and self-determination in medical affairs. No court has held a not-for-profit hospital to be engaged in the illegal practice of medicine although in a few jurisdictions, such as Iowa, there are statutes that prohibit the corporate practice of medicine by hospitals.

ASSURING RIGHTS

How can physicians protect their professional rights and assure self-governance in medical matters in the hospital setting? It does not seem likely that any court would rule that salaried physicians within the hospital must be cleared by the medical staff and continue as members of the medical staff. How can individual attending physicians protect themselves from dominance by full-time salaried chiefs of staffs? How can medical staffs assure themselves a direct line of communication to the governing board? What weapons are available to a medical staff in dealing with a recalcitrant or misguided governing board?

Although physicians engaged in the independent practice of medicine are largely entrepreneurs with respect to their financial arrangements with patients, nevertheless such physicians have a great deal in common with salaried physicians when they treat patients in a hospital.

It is abundantly clear that the hospital privileges given to a particular physician should be quite explicit with respect to what he can and cannot do in the treatment of patients within the hospital. As a practical matter, the professional man performing services for a patient in a hospital is governed by rules that differ little from those of a salaried physician treating patients, for example, in a university affiliated hospital where all physicians might be on a salary basis.

The attending physician is given to understand what he can and cannot do in the treatment of patients. There are rules he must observe as to when he must obtain consultation. To a large extent he must follow a medical methodology and order tests as required by the hospital rules. Like employees in an employer-employee relationship, his work is or should be under the constant surveillance and scrutiny of his peers in the framework of the organized medical staff.

In common with the employee, the so-called independent, attending physician is required to attend medical staff meetings; he is assigned committee chores; and he may be assigned involuntarily to take his turn on call in the emergency department. As is required by those who have an employee relationship with the hospital, the attending physician's hospital privileges require him to observe the administrative rules and procedures of the hospital which the governing board or the hospital administrator may establish for the orderly operation of the hospital.

The physician who loses his hospital privileges for cause has a great deal in common with the salaried physician who is fired for cause. It is a truism that the physician's hospital privileges make him just as economically dependent on the hospital as an employee is on his employer.

COMMON CHARACTERISTICS

If it is true that attending and salaried physicians have numerous characteristics common to their occupational performances, it is likewise true, even though some physicians may prefer not to engage in such comparisons, that the hospital and its governing board have a relationship to the attending physician quite comparable in nature and responsibility to the governing board's relationship to employees in the hospital.

The governing board is obligated to be selective in granting hospital privileges to qualified physicians. In executing this function, it should rely on the evaluation of professional attainments made by the organized medical staff. Without belaboring the point, it is quite obvious that the hospital, either directly through the administrative processes of the governing board or through the operation of the organized medical staff functioning on behalf of the hospital, exercises a great deal of control over the attending physician: control that matches the control employers exercise over employees.

Furthermore, just as there is close economic mutual dependence between employers and employees, there is perhaps an even closer mutual dependence between the hospital and the attending physician who is responsible for bringing patients to the hospital.

Identifying the common characteristics of attending, independent physicians and employees has great legal significance. Employees have strong, legally protected, economic weapons which they are entitled to use in "labor disputes" with their employers over terms and conditions of their employment. The Clayton and Norris-LaGuardia Acts specifically exempt "labor disputes" from the application of the Sherman Antitrust Act.

The term "labor dispute" is not limited exclusively to those persons who are wage earners. In the case in which the AMA was held to be in violation of the Sherman Antitrust Act, the United States Court of Appeals by way of an aside pointed out that there were circumstances under which physicians who were entrepreneurs could qualify for the same protection afforded

wage earners engaged in labor disputes. In other words, where the issue involves the terms and conditions under which labor is expended, whether by wage earners or independent contractors, the exclusion from the antitrust laws should be applicable.

In general, the federal antitrust laws prohibit unreasonable restraints against interstate commerce. Hospitals have been held to be engaged in interstate commerce and therefore subject to the antitrust laws and entitled to the protection of the exceptions to those laws.

In a dispute between a hospital governing board and the organized medical staff, what are the limitations upon what the medical staff can do to enforce its demands concerning the terms and conditions under which attending physicians serve patients in the hospital? What can the medical staff do to protect itself against a governing board that wants to make physicians the servants of the hospital rather than the patient? What can the medical staff do to protect medical professionalism from conversion to the institutionalized practice of the healing arts? What can be done to prevent the hospital-patient relationship from becoming dominant over the physician-patient relationship?

REASONABLE MEASURES

The antitrust laws prohibit unreasonable restraints. Reasonable restraints are not prohibited. At a minimum, the organized medical staff can use reasonable measures to improve the terms and conditions under which its members exercise hospital privileges and undertake counter-measures to the actions of the governing board. Reasonable in such cases would be determined in light of the action taken by the governing board.

Although the issue has not been litigated, in particular situations it appears that the organized medical staff should be entitled to the kind of economic and other weapons that trade unions, which are exempt from the antitrust laws when engaged in labor disputes, use in dealing with employers.

At stake in all of this is the physician's professionalism—the right to give top priority to the individual physician-patient relationship. Institutional objectives such as the provision of patient care that meets high statistical standards, sometimes is achieved only at the expense of the individual patient.

There is an important role for the medical so-

ciety in all of this. If the medical staff is to function as a collective unit on behalf of its members, it must have the assistance and guidance of those who are professionals in the process of arbitration, mediation and collective negotiation. No matter how highly trained as practitioners, physicians are novices and not professionals in the art of negotiation and mediation.

Hospitals have governing boards of businessmen, trained administrators and highly qualified attorneys, sometimes even professional labor lawyers, who guide the hospital's dealings with the medical staff. Often this professional team of administrators and lawyers is not visible, but their guidance is always present.

In physician-hospital disputes, the medical staff must have a comparable team of experts if medical practice is not to be institutionalized. This should be the role of organized medicine with the county medical society at the firing line providing direction and guidance to equalize the bargaining position of the medical staff.

Just as the union provides a business agent and legal experts to represent employees in difficult dealings with their employers, the same kind of help should emanate from county and state medical societies with AMA participation.

It is no longer sinful or despicable for medical societies to be called physician unions. The National Education Association, for example, an old-line professional association of teachers, learned this the hard way after the AFL-CIO got into the picture. Now the NEA openly and aggressively

functions as a union. If organized medicine is unwilling or unable to accept the challenge, then most assuredly the physician union movement will flourish and fill the vacuum. Unfortunately, they cannot do the jobs as well as organized medicine.

LEGITIMATE GRIEVANCES

Physician-hospital disputes are not necessarily one-sided affairs. There may be instances where there are legitimate grievances on one side or the other or mutual grievances of a legitimate nature. A few instances have come to the attention of the AMA where the organized medical staff has been lax in instituting recommended reforms or in keeping bylaws current. The result has been that harsh consultants were called in by the hospital swinging the pendulum too far in the opposite direction.

A medical society that has objective, qualified professionals to help it can render the best service by objectively pointing out where and how remedial measures should be voluntarily undertaken. Responsible unions do this also when members fall out of line and the employer calls upon the union to help correct the situation.

Medical societies can help by preparing materials such as kits of educational materials. A do-it-yourself handbook is insufficient, however, to deal with a governing board that is represented by high priced lawyers and professionally trained administrators.

* * * * *

"Rich, ornate prose is hard to digest, generally unwholesome, and sometimes nauseating."
—William Strunk, *The Elements of Style*, edited by E. B. White.

"A specter haunts our culture—it is that people will eventually be unable to say 'They fell in love and married,' let alone understand the language of Romeo and Juliet, but will as a matter of course say, 'Their libidinal impulses being reciprocal, they activated their individual erotic drives and integrated them within the same frame of reference.'"—Lionel Trilling, quoted by William B. Bean.

Jargon—"Confused unintelligible language"—"characteristic idiom of specialists or workers"—"pretentious or unnecessarily obscure and esoteric terminology"—"a language vague in meaning."—Webster.

"Medicalese"—"consists of the use of words in imprecise meanings, many of them special meanings; of misapplied attitudes; of the intrusion of ephemeral, professional colloquialisms into print, and of structural distortions or circumlocutions unconsciously used."

—Richard M. Hewitt

Gobbledegook—A term attributed to former Texas Congressman Maury Maverick, who applied it to "Federal prose," reminiscent of the pompous strutting of a turkey gobbler, "Wordy and generally unintelligible jargon; inflated, involved, and obscure verbiage."

—Webster

—Reprinted from the

Southern Medical Journal, May, 1974

HISTORY

This 48-year-old male was admitted for evaluation of progressive exertional chest pain compatible with angina pectoris. Routine physical examination, chest x-ray and laboratory screening were within normal limits. His admission electrocardiogram was within normal limits. A second resting electrocardiogram was obtained when he complained of palpitations, and is illustrated as Fig. 1.

Frequent premature ventricular contractions are noted. Prominent terminal negativity in V_1 and borderline widening of P waves suggest but do not diagnose left atrial enlargement. T wave amplitude is diminished in leads reflecting the inferior-lateral myocardium. The most interesting observation, however, is the marked change in T wave morphology following normal QRS's which are preceded by premature ventricular contractions. This is most evident in the rhythm strip, which is a standard lead II, and can be compared with lead II in the 12 lead tracing

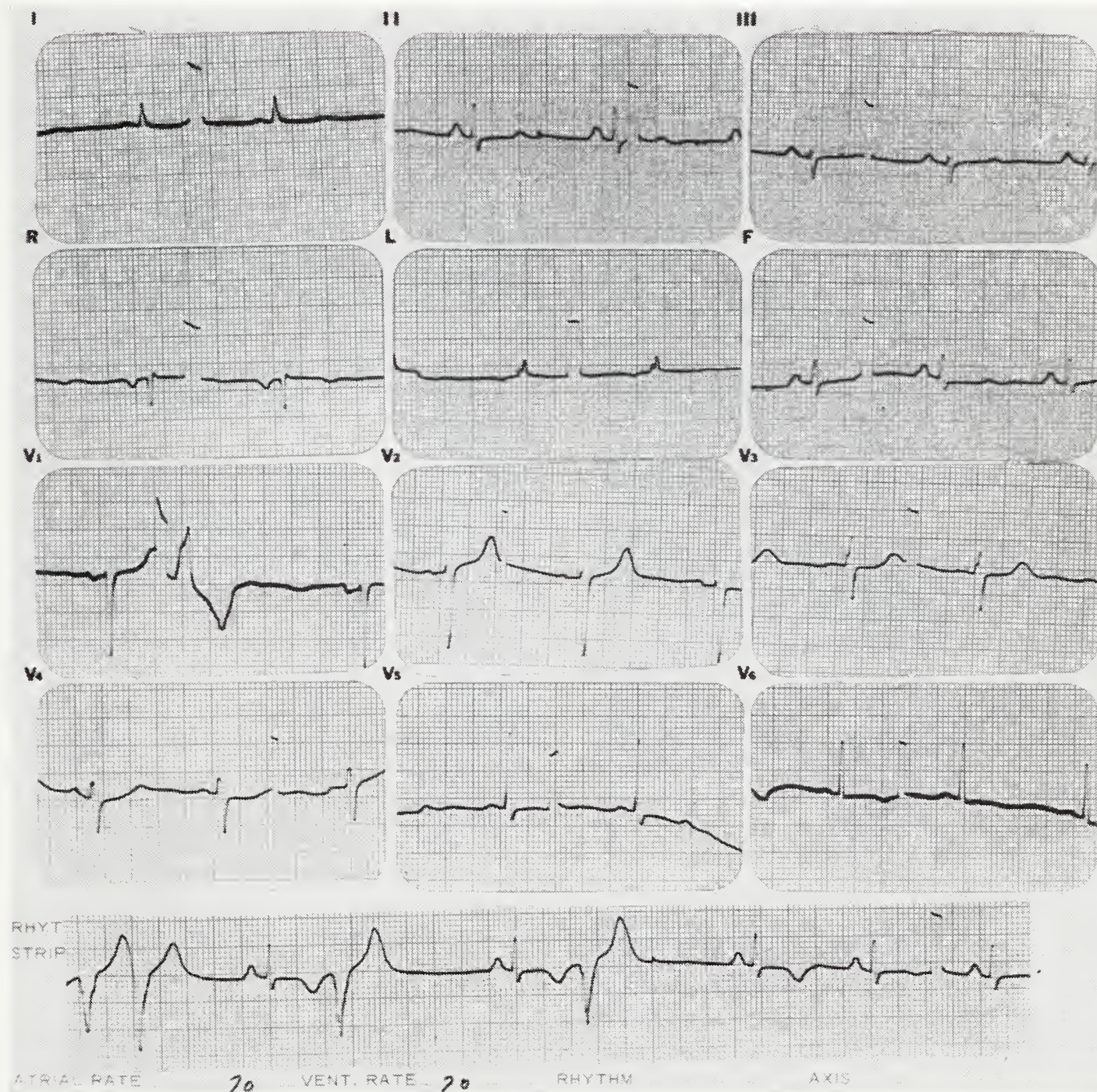


FIG. 1

From the Department of Cardiology, St. Thomas Hospital, Nashville, Tenn.

above. Note the marked inversion of T waves following QRS numbers 3, 5 and 7. The T wave
cont. on page 581

Medical Audit as a Tool for Determining Continuing Education Needs

Not By Laws Alone

MARTIN L. WALDMAN, M.D., FACS*

The objective of *formal* education is to provide the student with the fund of knowledge that is needed in the profession of his choice and to teach him how to use that knowledge. The curricula for formal programs have been established based on what experience has shown that fund of knowledge must be. They are based on the premise that the student starting on his educational path is the equivalent of a blank notebook into which many words of wisdom must be inscribed.

The problem of determining the educational objectives in *continuing* education is a different one. Here the recipient of the education already has a basic fund of knowledge and the problem is to determine: 1) if some of that knowledge may have leaked away leaving gaps that must be filled again, and 2) where must new knowledge be added that is useful to the student. Since the goal of continuing *medical* education is to maintain the skills of the *practitioner* at a level at which he can responsibly care for his patients, the needs of those patients must determine what the skills of the physician are to be.

It follows that the determination of what needs to be taught must come from an examination of the records of patients to determine if problems exist in the care that they received and if so was it due to a deficiency in the knowledge or skills of the practicing physician that could be corrected by educational means.

This is the logical method for choosing the instructional objectives for any program of continuing medical education. The classes or courses to be taught, the subjects of lectures, the types of demonstrations, the kinds of cases to be reviewed, and the literature to be read are selected on the basis of the kinds of patients being treated.

The busy practitioner can choose what con-

tinuing education will be of most value in his own practice. In the hospital setting education can be directed at improving the care of patients that are seen there, rather than having some visiting professor discuss two cases of pancreatitis that developed ingrown toenails.

The medical audit is a tool for determining, among other things, where continuing medical education is needed. Let me describe how it works.

The process starts by choosing a topic to be studied, often one in which there is a fair amount of action in the hospital, or one in which it is possible that problems exist. Another possibility is for the educator to suggest a topic where a new technique for therapy or new kinds of investigations have become recommended in the current literature.

Once a topic is chosen, standards are adopted by an "expert" committee of physicians based on their experience and knowledge and supplemented by a review of standard texts and current literature. The standards describe the pattern of care that should be given to that group of patients if care is at a level of excellence. Standards would be adopted that describe the outcomes that are expected and the process of care being carried out. (This function of establishing standards is in itself an educational experience for physicians on the committee.)

To examine the pattern of care being given to groups of patients, we need "pattern standards." A pattern standard is a statistic that describes just how often an objective feature of medical care is expected to be present or avoided if the care is at a level of excellence. By using pattern standards we avoid establishing a "cookbook" for medicine that is the result of setting up check lists of things that must be done for each and every patient. The use of pattern standards allows the committee to take into account those factors not under control of medical care and also to take into account variations in management and

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outcome that result from the differences in individual patients response to illness, injury, or treatment.

The next step is to retrieve the information on the actual medical care that was delivered to the patients and compare it to the pattern standards. This requires pattern descriptions of care of the type provided by the Professional Activity Study (PAS) and the Medical Audit Program (MAP) of the Commission on Professional and Hospital Activities (CPHA). The description of care should be prepared by a health record analyst, a person trained in the retrieval and display of data.

The comparison of performance to standards will reveal whether or not deviations exist. Mind you, I said a deviation and not a deficiency, for a deviation may be insignificant, may indicate superior care or may be explained by allowable exceptions. It may indeed be a deficiency but that cannot be assumed until an analysis has been carried out.

If it is noted to be a deficiency, then a decision must be made as to whether or not that deficiency represents a problem in performance of the medical delivery system or truly represents a gap in the skills and knowledge of the physicians on the medical staff of the hospital. It is only in the latter case that formal educational programs are of any value. A determination of the type of

problem that exists and the level at which it exists (a hospital-wide, department-wide, or just a couple of individuals) will lead to a logical determination of what kind of educational program will be needed to correct these defects and who it should be aimed.

A medical audit committee will then be able to recommend to the educator and the hospital staff just where continuing education is needed in terms of the kinds of patients that are being cared for.

An evaluation of the effectiveness of the education can be obtained by performing follow-up medical audit studies to determine if the desired change in behavior actually occurred.

A specific step-by-step procedure and a form for carrying out medical auditing is described in my article entitled "The Medical Audit Study—A Tool for Quality Control" which appeared in *Hospital Progress* in February 1973. Reprints are available by writing to CPHA in Ann Arbor, Michigan.

In summary, the performance of medical audit studies is an educational opportunity for the committee, a tool for determining just where educational needs exist within the context of practice in the hospital, and a means of evaluating the effectiveness of educational efforts.

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EKG of Month

cont. from page 579

following QRS number 8 is returning to the upright morphology noted in the 12 lead tracing. This so called "post extra-systolic T wave change" is unexplained, but is generally assumed to reflect underlying organic heart disease. Exercise electrocardiography and selective coronary arteriography correlated the observation in this patient

with advanced obstructive coronary artery disease in the inferior lateral myocardial distribution.

Final ECG diagnosis: "Post extrasystolic T wave changes."

Final anatomic diagnosis: Obstructive coronary artery disease.

HARRY L. PAGE, JR., M.D.
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Co-Directors

* * * * *

T3-Toxiocsis

cont. from page 572

REFERENCES

1. Anderson, BG: Free Thyroxin in Serum in Relation to Thyroid Function. *JAMA*, 203, pp. 135-140, Feb. 19, 1968.
2. Leiblich, J, and Utiger, RD: Triiodothyronine Radioimmunoassay. *J Clin Investigation*, 51:157-166, 1972.
3. Gharib, H, Ryan, RJ, and Mayberry, WE: Tri-

iodothyronine (T3) Radioimmunoassay, A Critical Evaluation. *Mayo Clin Proc*, 47:934-937, 1972.

4. Sterling, K, Refetoff, S, and Selenko, WHA: T3 Toxicosis—Thyrotoxicosis Due to Elevated Serum Triiodothyronine Levels. *JAMA*, 213:571-575.

5. Hollander, CS, Mitsuma, T, and Nihei, N: Clinical and Laboratory Observations in Cases of Triiodothyronine Toxicosis, Confirmed by Radioimmunoassay. *Lancet*, 1:609-611, 1972.

6. Wahner, HW: T3 Hyperthyroidism. *Mayo Clin Proc*, 47:938-943, 1972.

A 21-year-old male was admitted to the hospital for evaluation of a six week history of hypertension. The initial presenting symptom was a left frontal headache. There was a 4 to 5 month history of lower epigastric and left lower quadrant abdominal cramping pain, nausea and vomiting. The patient denied muscle and joint pains, dysuria, hematuria, renal calculi, palpitations, heart disease, renal disease, dyspnea, chest pain, or hemoptysis.

On admission the blood pressure was 170/125 mm Hg. Funduscopy examination was normal six weeks prior to admission, but moderate arteriolar narrowing with AV nicking, a few small flame-shaped hemorrhages and cotton wool exudates in the left eye were present on admission. A grade II/VI systolic ejection murmur was heard at the left sternal border. The remainder of the physical examination was negative. Family history was negative and the past history revealed only asthma in childhood.

Pertinent laboratory data included 9% eosinophils and 40% lymphocytes in the peripheral blood, BUN 21 mg/100 ml, creatinine 2.2 mg/100 ml, total protein 8.6 gm/100 ml, SGOT 90 units/ml (subsequently rising to 130 units/ml), borderline elevated LDH and alkaline phosphatase, Australian antigen positive x 2, mildly elevated gamma globulins on serum protein electrophoresis, and normal plasma renin. The urinalysis was normal. IVP and upper GI series were normal. Abdominal aortogram and selective renal arteriograms were performed. Figure 1 shows arterial phase of the abdominal aortogram. Figure 2 is a magnified view of the selective left renal arteriogram, showing the lower pole in detail.

Radiological Findings:

The main renal arteries and the segmental renal

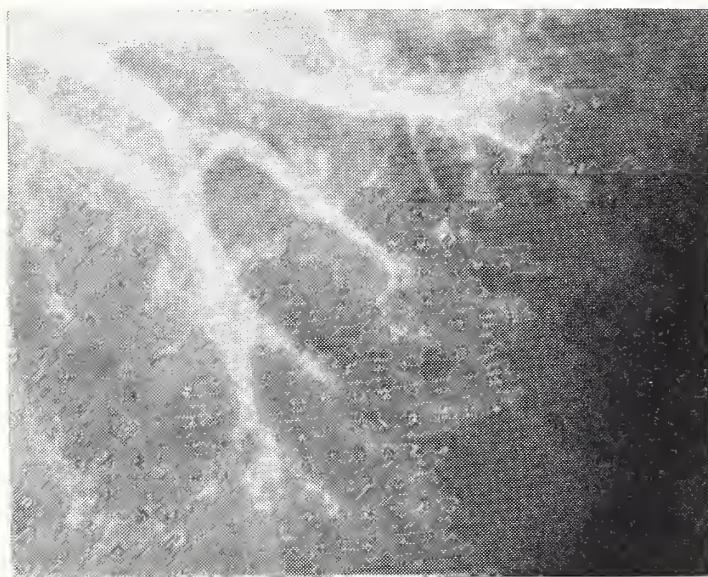


FIG. 1

From the Department of Radiology, Vanderbilt University Hospital, Nashville, Tenn. 37232.

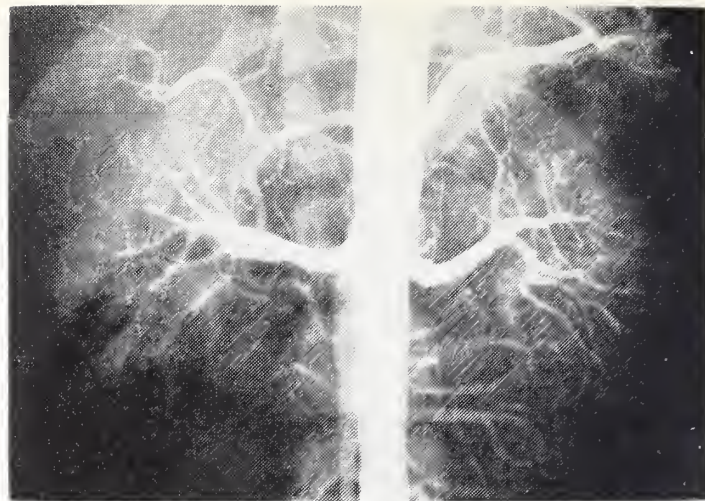


FIG. 2

arteries are normal. Multiple aneurysms, different in size and shape, are seen throughout the renal parenchyma involving the medium and small arteries and arterioles. These arteries are attenuated in caliber and decreased in number. The renal cortex is grossly irregular and scarred, indicating vascular thromboses and parenchymal fibrosis. Visceral vascular branches of the liver, spleen, and intestines are normal.

Radiological Diagnosis:

Polyarteritis nodosa.

Clinical Course:

The patient's hypertension proved extremely difficult to manage. Multiple combination of drugs were tried, including Aldomet, Propranolol, Hydralazine, Guanethidine, and Hydrochlorothiazide. At the time of his discharge his blood pressure still varied from 130-150/100-120 mm Hg.

Because of positive Australia antigen,⁴ typical radiographic findings, and lack of symptomatic areas for skin or muscle biopsy, no further diagnostic procedure was pursued.

Discussion:

Polyarteritis nodosa is a form of necrotizing angiitis and probably has varied etiological factors. The patients are usually males in the third or fourth decade and are often hypertensive. An association between polyarteritis and Australia antigen in the serum has been well documented.⁴

Pathological changes in polyarteritis nodosa are characterized by multiple foci of fibrinoid necrosis in the media, subsequently extending into the other layers with destruction of the elastic lamina and aneurysm formation.³ Acute cellular infiltration is followed by chronic inflammatory cells and later organization and thrombosis. Arteritis and glomerulitis may occur separately or together.

Multiple renal interlobar and arcuate artery aneurysms plus parenchymal scarring from thrombosis and infarction are virtually pathognomonic of polyarteritis nodosa,² although other forms of

necrotizing angiitis may have identical angiographic findings.⁹ Fleming and Stern³ in 1965 first reported in vivo demonstration of multiple intraparenchymal renal aneurysms in polyarteritis nodosa. Since then, there have been several other reports.^{1,7,9}

The differential diagnosis of renal aneurysms includes: 1. Congenital. 2. Arteriosclerosis. 3. Fibromuscular disease. 4. Mycotic aneurysms. 5. Trauma. 6. Neoplasms. 7. Polyarteritis nodosa and other types of necrotizing angiitis. 8. Tuberous sclerosis and neurofibromatosis.

Congenital aneurysms are frequently multiple and characteristically involve bifurcations of extraparenchymal renal vessels. Aneurysms in arteriosclerosis occur in the main renal arteries. Mycotic aneurysms can be parenchymal and mimic aneurysms seen in polyarteritis nodosa.² Clinical and bacteriological findings may help to establish this diagnosis. Aneurysms following trauma are usually few in number and a diagnosis can be established by clinical history. Angiographic diagnosis of aneurysms occurring in renal neoplasms is not difficult. Aneurysms in tuberous sclerosis and neurofibromatosis usually involve the main renal arteries or their main branches.⁵

The kidneys are the most frequently involved organs in polyarteritis nodosa with pathologic findings occurring in approximately 85 percent of cases. The liver (66 percent), gastrointestinal tract (51 percent), skeletal muscles (30 percent), peripheral nerves (27 percent), and skin (20 percent)⁸ are less frequently involved.

Angiography, especially renal arteriography, may constitute the most accurate and reliable diagnostic procedure in clinically suspected polyarteritis nodosa.² The incidence of renal aneurysms in autopsy material in polyarteritis nodosa varies from 3 to 28 percent.³ The incidence of angiographically demonstrable aneurysms is unknown and may be as high as 75 percent.⁹ This discrepancy may be at least partially explained by total disappearance of

aneurysms with improved vascular appearance in the course of the disease in some cases of polyarteritis nodosa.⁹ Polyarteritis nodosa with numerous and extensive aneurysms involving branches of the renal, hepatic, splenic, mesenteric, lumbar, intercostal, inferior phrenic, and hypogastric arteries has also been reported.⁶

Spontaneous retroperitoneal hemorrhage from ruptured renal aneurysms is a recognized complication.^{2,7} Renal biopsy is to be avoided if intrarenal aneurysms have been shown angiographically. Renal angiography has an established role in the diagnosis of polyarteritis nodosa and should be utilized more frequently.^{1,2,3,6}

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REFERENCES

1. Bron, KM, Strott, CA, and Shapiro, AP: The diagnostic value of angiographic observations in polyarteritis nodosa. *Arch Int Med*, 116:450-454, 1965.
2. Capps, JH, and Klein, RM: Polyarteritis nodosa as a cause of perirenal and retroperitoneal hemorrhage. *Radiology*, 94:143-146, 1970.
3. Fleming, RJ, and Stern, LZ: Multiple intraparenchymal renal aneurysms in polyarteritis nodosa. *Radiology*, 84:100-103, 1965.
4. Gocke, DJ, et al: Association between polyarteritis and Australia antigen. *Lancet*, 2:1149-1153, 1970.
5. Green, GJ: The radiology of tuberous sclerosis. *Clin Radiology*, 19:135-147, 1968.
6. Herschman, A, Blum, R, and Lee, YC: Angiographic findings in polyarteritis nodosa: Report of a case. *Radiology*, 94:147-148, 1970.
7. McClure, PH, and Westcott, JL: Periarthritis nodosa with perirenal hemorrhage: A case report with angiographic findings. *J Urology*, 102:126-129, 1969.
8. Nuzum, JW, Jr, and Nuzum, JW: Polyarteritis nodosa: statistical review of 175 cases from the literature and report of a "typical" case. *Arch Int Med*, 94:942-955, 1954.
9. Robins, JM, and Bookstein, JJ: Regressing aneurysms in periarthritis nodosa. *Radiology*, 104:39-42, 1972.

Licorice Intoxication

For those interested in hypertensive disease, licorice intoxication is one of the most intriguing curable forms of blood pressure elevation. Its diagnosis, suggested by the history and its treatment (discontinuing the source of licorice), make it a rewarding form of hypertension with which to deal.

Historical Background

Licorice extract, derived from the root of a plant, *Glycyrrhiza glabra*, has long been used as a flavoring agent for medications, foodstuffs and beverages. Its use in folk medicine for the treatment of indigestion led to the use of licorice in many patent medicines during the 19th and early 20th century. In 1946 the usefulness of licorice extract in the treatment of peptic ulcer disease was reported, but it is of note that edema and congestive heart failure occurred in 20 percent of patients treated in this fashion. In 1950 Molhuysen reported a similarity between the salt retaining action of deoxycorticosterone (DOC), a potent mineralocorticoid produced by the adrenal cortex, and licorice, and suggested that the active principle of licorice extract was glycyrrhizic acid. For a few years thereafter, licorice extract was used in the treatment of Addison's disease. During the early 1950's several medications flavored with licorice extract to disguise their unpleasant taste were found to be responsible for the development of hypokalemic alkalosis, hypertension, edema and occasionally fatal arrhythmia.

In 1956 Louis and Conn were able to isolate pure ammonium glycyrrhizinate from licorice and demonstrated that this compound was responsible for the sodium retention, potassium loss and edema of licorice intoxication.

Pathophysiology of Licorice Intoxication

In a fashion similar to aldosterone, glycyrrhizinate acts directly on the kidney tubule causing sodium retention and potassium loss. Sodium retention results in an expansion of the effective intravascular volume leading to the development of hypertension. In addition, the increased intra-

vascular volume results in decreased production of renin by the kidney, leading to decreased production of aldosterone by the adrenal gland. It might, therefore, be expected that a mineralocorticoid antagonist, such as spironolactone, would block the sodium retention and potassium wasting of glycyrrhizinate excess. Salassa, et al, have demonstrated such an effect in an individual ingesting large amounts of licorice.

Clinical Spectrum of Licorice Intoxication

The presentation of patients with licorice excess mimics so closely the findings in patients with primary aldosteronism that this syndrome has been called pseudoaldosteronism. The clinical and chemical findings are related to the physiologic effects of glycyrrhizinate. As sodium retention occurs patients develop edema and hypertension, ranging from mild asymptomatic disease to severe accelerated hypertension with retinopathy and proteinuria. Potassium depletion occurs and may be severe, particularly if the patient has received thiazide diuretics for treatment of edema or hypertension. This potassium depletion is thought to be responsible for the muscle weakness which sometimes progresses to flaccid paralysis or quadriplegia, and the cardiac arrhythmias associated with licorice intoxication.

Diagnosis

The diagnosis is established by obtaining the history of licorice ingestion. It may be confirmed by the presence of hypokalemia, suppressed PRA and low urinary aldosterone excretion.

Treatment

The treatment of licorice intoxication involves discontinuing the ingestion of licorice and treating the specific complications. Initially the hypertension may require therapy with antihypertensive agents and the congestive heart failure the use of digitalis, which must be used cautiously in view of the hypokalemia. Often large amounts of intravenous and oral potassium chloride are required to correct the potassium deficiency, which may be profound. Patients may require careful monitoring for cardiac arrhythmias, which may be severe and unresponsive to antiarrhythmic agents, until the serum potassium is raised. The tempo-

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rary use of spironolactone is helpful in inducing sodium loss and potassium retention.

The blood pressure elevation of licorice excess usually returns to normal within a month after licorice ingestion ceases.

Extent of the Problem

Although licorice extract is used as a flavoring for many medicines, foods and beverages, it is generally thought harmless in amounts ordinarily consumed. Toxic manifestations have occurred generally in patients consuming large amounts of the substance over a long period of time. In the United States licorice candy bars are often the culprit. In Europe a licorice flavored alcoholic beverage Boisson de Coco has been incriminated as causing licorice intoxication, and in England Biogastrone® (Carbenoxalone) a medication derived from glycyrrhizic acid and used for the treatment of gastric ulcer disease has been blamed for hypertension and hypokalemia in some patients.

Since glycyrrhizinate is 100 times as sweet as sugar, it has found use as a sugar substitute in dietetic foods. No clinical toxicity has been demonstrated at the concentration used.

Summary

Licorice intoxication is a rare cause of hypertension, diagnosed by a history of ingestion of

licorice containing foods in the setting of hypertension, hypokalemia, suppressed PRA and low urinary aldosterone excretion. It is treated by discontinuing the source of licorice. Spironolactone may be used adjunctively to enhance potassium replacement. Licorice extract in small concentrations is a common food additive.

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REFERENCES

1. Conn, JW, Rovner, DR, Cohen, EL: Licorice-Induced Pseudoaldosteronism. *JAMA*, 205:492-496, 1968.
2. Gross, EG, Dexter, JD, Roth, RG: Hypokalemic Myopathy with Myoglobinuria Associated with Licorice Ingestion. *New Eng J Med*, 274:602-606, 1966.
3. Koster, M, David, GK: Reversible Severe Hypertension Due to Licorice Ingestion. *New Engl J Med*, 278:1381-1383, 1968.
4. Louis, LH, and Conn, JW: Preparation of Glycyrrhizic Acid, the Electrolyte-Active Principle of Licorice: Its Effects Upon Metabolism and Upon Pituitary-Adrenal Function in Man. *J Lab Clin Med*, 47:20-28, 1956.
5. Molhuysen, JA, Gerbrandy, J, and DeVires, LA, et al: A Licorice Extract with Deoxycortone-Like Action. *Lancet*, 2:381-386, 1950.
6. Salassa, RM, Mattox, VR, and Rosevear, JW: Inhibition of the "Mineralocorticoid" Activity of Licorice by Spironolactone. *J Clin Endocr Metab*, 22:1156-1159, 1962.

* * *

10 Thieves Who Steal Time

We are what we do with our time, psychologists say. The management of time, says W. E. Bright, Union Oil Co. of California, is actually self-management. He identifies ten "thieves," common in management, whose specialty is the purloining of time: 1) *The compulsive communicator*. His personal need to express himself is so overwhelming that he has no time for feedback or questions or even to ascertain whether he has been understood. 2) *Barn swallow*. He swoops in and out so fast that few people know he has been present. He sometimes wonders, too. 3) *Phonomaniac*. He lives on the phone, squeezing whatever has to be done into those brief periods between calls. 4) *Puzzled private*. He sees all jobs as having equal importance, so it's almost impossible for him to establish priorities. 5) *Unhappy hedonist*. When faced with two jobs, one pleasant and one unpleasant this guy just can't help opting for the fun job. 6) *Harried high jumper*. Everything he does reminds him of another job that needs doing. The result: He juggles so many tasks that few are completed. 7) *Fireman*. Most managers have to "put out fires," but keep your eye on the guy who gets a pyromaniac's gleam in his eye. 8) *Busy bee*. He's so compulsive about keeping busy that he never has time to plan or think things through. 9) *Defective detective*. He pleads, "We haven't got enough facts to make a decision." His problem: Fear of making a decision. (*Industry Week*, 10/9/72)

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Serum Digoxin and Digitoxin Determinations

Determinations of serum levels of digoxin and digitoxin are widely used in clinical medicine today, and can only grow in importance as sophisticated cardiac diagnostic and therapeutic techniques continue their rapid development. In general, indications for the performance of these tests are:

1. Cases of suspected toxicity—such manifestations are almost entirely those of cardiac arrhythmias, particularly of the A-V junctional type; non-cardiac manifestations (e.g. nausea, anorexia, mental disturbances) are less easily evaluated and have not generally been considered as significant.
2. Cases with high risk of toxicity, as with impaired renal function (more important for digoxin than for digitoxin), ischemic heart disease, electrolyte disturbances (decreased serum potassium and/or magnesium, elevated serum calcium), systemic anoxia (e.g. chronic pulmonary disease), hypothyroidism (decreased metabolism of the drugs).
3. Suspected excessive ingestion of one of the digitalis glycosides.
4. Suspected impairment of absorption of the drug (especially important for digoxin), as with malabsorption states or intestinal hypermotility.

Figures as to the incidence of digitalis toxicity hospitalized patients range from 8-20 percent of those receiving one of the glycosides, with a mortality rate of up to 50 percent due either directly or indirectly to the toxicity. Thus the availability of a test for the monitoring of serum drug levels may, in some cases, be a life-saving tool for the clinician.

Digitoxin is readily absorbed from the gastrointestinal tract, is strongly bound to plasma proteins, and is largely metabolized by the liver with renal excretion of the breakdown products.

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Digoxin, on the other hand, is incompletely absorbed, is less strongly bound to plasma proteins, and is largely excreted unchanged in the urine. Consequently, blood levels of digoxin may be expected to be influenced to a much greater extent by gastrointestinal and renal disorders, particularly the latter, than are those of digitoxin. Some drugs that affect the hepatic metabolism of digitoxin may cause significant changes in the blood levels of that agent. Age has been found to be a significant factor in digitalis toxicity only in its relationship to ischemic heart disease and impaired renal function.

Blood level determinations are generally performed on serum. The standard laboratory method employed is that of radioimmunoassay, using the isotopically labelled glycoside and antiserum specific for that glycoside. The major technical interference encountered in the test is that of serum "contamination" due to the presence of radioisotopes administered for other diagnostic tests. A second source of false test results arises when a specimen from a patient receiving, for example, digitoxin, is submitted for "digoxin level." The "specific" antibody in the test system will cross-react with the other glycoside present in the patient's serum to the extent of 5 to 10 percent. Thus, in the above instance, the "digoxin level" might appear to be significantly high. Conversely, the "digitoxin level" of a patient receiving therapeutic doses of digoxin would be very low or undetectable. Therefore, specimens submitted for analysis must be properly identified as to the test desired, to avoid this potentially dangerous situation. (*The confusion may be alleviated by using the term "lanoxin" for "digoxin"—Ed.*)

Ideally, to afford time for blood-tissue equilibration, blood specimens should be obtained at least 5 to 6 hours after the time of administration of the last dose, or even longer in the case of digitoxin. Although there is a considerable degree of overlap between non-toxic and toxic ranges, in the case of digoxin it has been found that 90 percent of non-toxic patients will have serum levels of 2 ng/ml or less, and that roughly the same percentage of toxic patients will have levels above 2 ng/ml. For digitoxin the differential value is less well defined, but levels over 25 ng/ml should suggest the possibility of toxicity.

DEAN G. TAYLOR, M.D.

The Spleen Scan

Although hematologic function of the spleen may be evaluated by scanning the spleen with radiopharmaceuticals such as chromated red cells or platelets, iron, mecurihydroxypropane, or seleniomethonine, because of the ease of preparation and high photon flux with useable short lived isotopes, radiocolloids are the most commonly used spleen scanning agents. When radiocolloids are used to scan the spleen, one wishes to determine whether a left upper quadrant mass is spleen, its size, whether it is displaced from its normal anatomic position, its size relative to that of the liver, and its affinity for colloid relative to that of liver and bone marrow. In addition, non-uniform distribution of isotope in the spleen may suggest a focal lesion.

Case No. 1: A 31-year-old white male admitted to the emergency room after a motorcycle accident showed multiple abrasions, a fracture of the right tibia and abdominal pain. Vital signs were normal, as were the CBC, SMA12, chest x-ray and urinalysis. The patient complained of left upper quadrant pain. His hematocrit fell rapidly over a two-day period and the left upper quadrant pain persisted. Spleen scan (Fig. 1) showed a focal decrease in isotope concentration ("cold spot") in the spleen which was interpreted as an area of

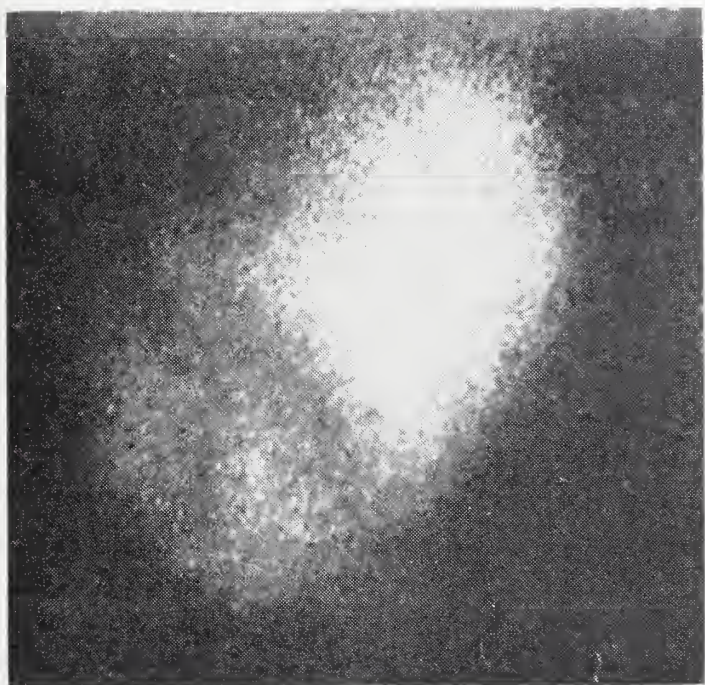


FIG. 1

From the Department of Nuclear Medicine, Park View Hospital, Nashville, Tenn. 37203.

hemorrhage. Splenectomy was performed. Recovery was uneventful.

Case No. 2: An 80-year-old lady with splenomegaly, long standing arthritis and myeloid metaplasia secondary to myelofibrosis was admitted to the hospital because of left upper abdominal pain. Her LDH was markedly elevated. A spleen scan (Fig. 2) showed a large "cold



FIG. 2

spot" consistent with hemorrhage into the spleen. Her vital signs were stable. She suddenly had a drop in blood pressure and died. An autopsy showed hemoperitoneum with hemorrhagic infarction of the spleen.

Although radiocolloid spleen scans may be used to evaluate splenic enlargement due to polycythemia, tumor, excessive water ingestion, prior radiation therapy, hemolytic anemia and hyperlipidemia, to appreciate displacement due to gastric dilatation, or to appreciate accessory splenic tissue, the principal clinical use of the spleen scan remains the assessment of "cold spots" in the spleen.

In the two cases illustrated here, the cold spot in the spleen scan secondary to hemorrhage was easily demonstrated in 15 minutes by a non-invasive technique. Since splenic rupture carries a high mortality rate in adults and since the method of scanning with a radiocolloid is so easily and safely performed, greater utilization of the spleen scan would certainly serve the interests of the patient.

ROBERT L. BELL, M.D., *Director*

Coexistent Congenital Cytomegalovirus And Toxoplasmosis in a Newborn Infant

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LOUIS S. PARVEY, M.D., and FABIEN G. EYAL, M.D.

CASE PRESENTATION

Present Illness: The mother, a 15-year-old black primigravida, was admitted to John Gaston Hospital in her first stage of labor. The estimated gestational age was 40 weeks. She gave no history of febrile illness, skin rash or drug ingestion during pregnancy. Her blood type was A, Rh₀ (D) positive; and her VDRL was negative. The first stage of labor lasted 19 hours and spontaneous rupture of the membranes occurred 2 hours prior to delivery. The amniotic fluid was clear and unstained. She delivered a 2,165 gram male infant. The placenta was not examined. The Apgar scores were 7 and 10 after one and five minutes following birth.

Physical Examination: The child developed generalized petechial rash within the first hour of life. His temperature was 36.5°C and the pulse and respiratory rates were 120 and 50 per minute, respectively. The head circumference was 28 cm and his crown-heel length 44 cm. He appeared jittery, with increased muscular tone. Bilateral chorioretinitis was present. The chest was clear to auscultation; the abdomen was soft with the liver edge palpable 4 cm below the right costal margin and the spleen palpable 4 cm below the left costal margin. Lymph nodes were palpable in the axillary and cervical areas.

Laboratory Data: Laboratory studies in the first day of life disclosed a hemoglobin of 15.9 gm/dl; hematocrit, 45 per cent; white blood cell count, 18,600 per cubic millimeter, with a differential count of 46 per cent segmented granulocytes, 46 per cent lymphocytes, and 8 per cent monocytes. The reticulocyte count was 12.5 per cent; platelet count, 14,000 per cubic millimeter; prothrombin time, 11.7 seconds (control, 11.7 seconds); and partial thromboplastin time, 47 seconds (control, 37 seconds). The direct antiglobulin (Coombs) test was negative; blood glucose, 26 mg/dl; serum total bilirubin, 3.5 mg/dl with a direct fraction of 0.8 mg/dl; SGOT, 146 Reitman-Frankel Units (normal, 0-45). The VDRL test was negative. The spinal fluid examination was reported to contain 110,000 red cells per cubic millimeter; 50 white blood cells per cubic millimeter with 20 per cent polymorphonuclears and 80 per cent mononuclears; glucose 19 mg/dl; and protein 412 mg/dl. The hemagglutination inhibition titers for Rubella were 1:80 for the mother and 1:10 for the infant. Complement fixation titers for Herpes simplex, cytomegalovirus and toxoplasma were all less than 1:8. A single cytologic examination of the infant's

urine was negative for inclusions bodies of cytomegalic inclusion disease.

Roentgenograms taken soon after birth showed microcephaly and multiple small intracranial calcification in the frontal and parietal regions (Figs. 1 and 2). No evidence of periosteal reaction or bone resorption in the long bones was noted. Normal lung fields were seen on chest X-ray.

Clinical Course: The initial episode of hypoglycemia was treated with intravenous administration of glucose and did not recur. The patient remained very jittery, with increased muscular tone and a weak cry. His condition remained stable except for one seizure on the 3rd post partum day. He was treated with phenobarbital. Ampicillin and kanamycin were given to the infant from the first day but were discontinued on the 6th day when blood cultures were reported to be negative.

On the 10th day after birth the hemoglobin was 8.3 gm/dl; hematocrit, 24 per cent; white blood cell count, 7,000 per cubic millimeter, with a differential count of 57 per cent segmented granulocytes, 34 per cent lymphocytes, 8 per cent monocytes and 1 per cent eosinophils; reticulocyte count, 8.3 per cent; platelet count 12,500 per cubic millimeter. The total serum bilirubin was 1.2 mg/dl with a direct fraction of 0.1 mg/dl.

On the 15th day after birth he developed severe respiratory distress. Roentgenograms revealed bilateral opacification of lungs thought to be consistent with pneumonia. Blood, urine and spinal fluid cultures were obtained and ampicillin and kanamycin sulfate were given to the infant but he failed to respond and expired on the 16th day of life. The cultures were subsequently negative.

CLINICAL DISCUSSION

DR. CAROL M. PERRY: The clinical manifestations of this 16-day-old infant were those of a congenitally infected child. A differential diagnosis must be established between a bacterial sepsis vs. a transplacentally acquired chronic infection.

My hypothesis is that the infant's disease process was related to the latter type of infection, toxoplasmosis and cytomegalovirus disease (CID) must be strongly considered. Before developing this hypothesis further, I would like to rule out a bacterial sepsis. Against bacterial sepsis is the fact that the infant developed a petechial rash soon after birth and this would be an extremely early presenting sign for this type of infection. Moreover, the amniotic fluid was clear and unstained, the membranes ruptured 2 hours prior to delivery of the infant, the mother had no febrile illness during the pregnancy, and the maternal history of normal labor for a primigravida are highly unusual for bacterial sepsis.

The baby had some other physical findings that are difficult to explain on the basis of sepsis,

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namely, a "small for date" size, with the height, weight and head-circumference well below the 10th percentile on the growth grid. We suspect a transplacentally acquired infection when we see severe degrees of intra-uterine growth retardation. Microcephaly may deviate fetal growth, but microcephaly associated with chorioretinitis is most often seen in patients with toxoplasmosis and CID. Chorioretinitis alone also can be seen in syphilis. These three transplacentally acquired infections often have non-specific hematologic findings similar to those present in this infant, namely, hepatosplenomegaly, jaundice, anemia, thrombocytopenia and petechial rash. The presence of lymphadenopathy at birth is also suggestive of a response to a congenital infection.

The clinical manifestations of syphilis appear soon after birth and consists of mucocutaneous lesions, hepatosplenomegaly, anemia due to hemolysis, jaundice, lymphadenopathy, snuffles, and pseudoparalysis. The roentgenographic findings consist of osteochondrosis and periostitis. The mother's VDRL was negative, but we are not told at what point in pregnancy this test was performed. If the VDRL was negative early in pregnancy, there is still the possibility she could have acquired the syphilis later. The infant's VDRL was also negative and this, too, speaks against syphilis.

It is also my opinion that congenital Rubella is an unlikely cause for this child's clinical findings because the essential lesions in patients with Rubella syndrome were not present in this infant, namely, congenital heart disease and eye defects, specifically cataracts and congenital glaucoma. Other clinical manifestations of congenital Rubella include marked intra-uterine growth retardation, deafness, full fontanelle, microcephaly, thrombocytopenic purpura, anemia, hepatosplenomegaly, jaundice and lymphadenopathy. Moreover, the roentgenographic findings commonly associated with congenital Rubella syndrome were not present in this infant: metaphyseal bone lesions in the upper and lower extremities. Before I continue, I think we would benefit from looking at the x-rays.

LOUIS S. PARVEY, M.D.: The most striking radiographic findings in this neonate were found on the skull radiographs (Figs. 1 and 2). The anteroposterior and lateral views reveal a moderate microcephaly and cerebral calcifications. The calcifications are characteristic though not specific for both toxoplasmosis and cytomegalovirus cerebroventriculitis. There are crescents,

streaks and conglomerates of calcification in the frontoparietal parenchyma sparing the posterior fossa, and periventricular curvilinear calcification particularly in the right hemisphere.

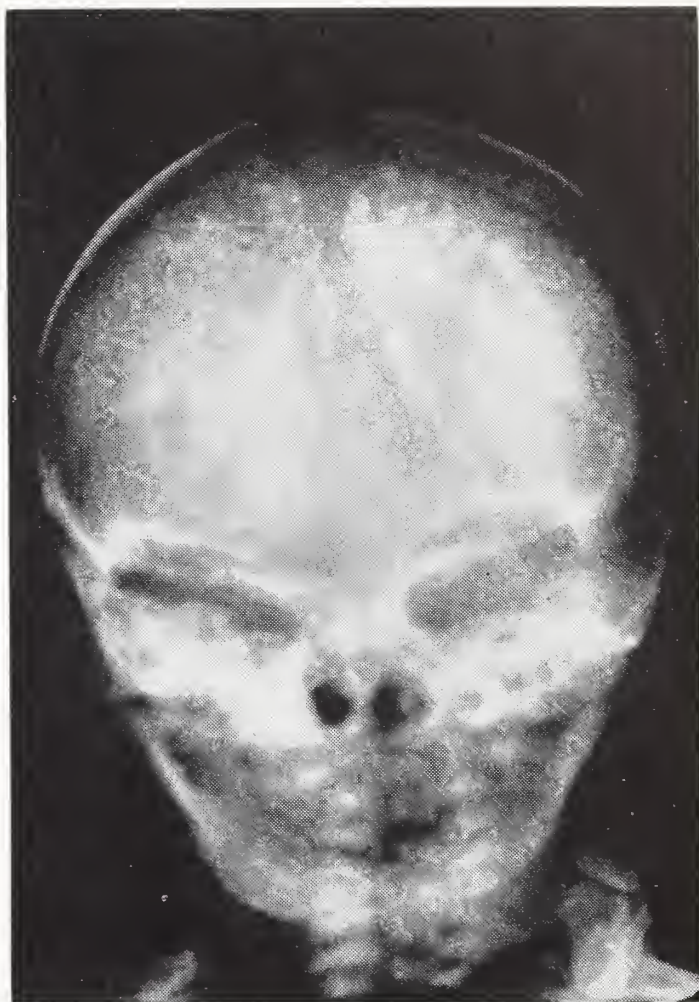


FIG. 1

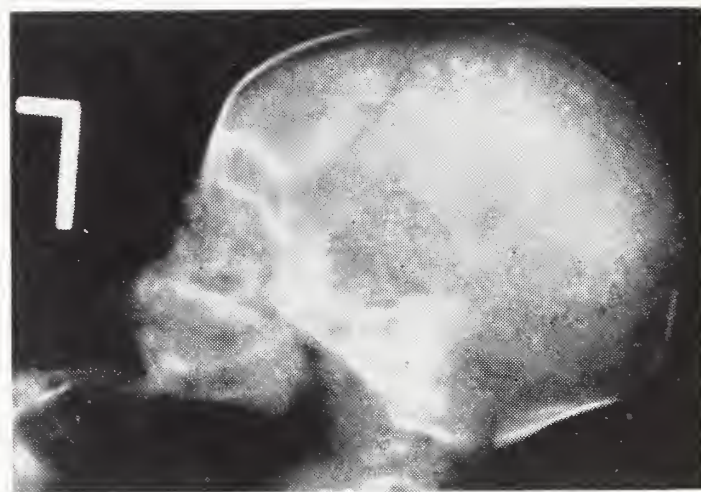


FIG. 2

In the past it was felt that periventricular calcifications were characteristic for cytomegalovirus infection; this has been repeatedly disproven as toxoplasmosis can mimic this pattern exactly. The calcifications in both diseases occur in areas of focal inflammation that undergo necrosis and calcify. About 60% of congenital toxoplasmosis and 25% of congenital cytomegalovirus will have cerebral calcifications. When significant paren-

chymal destruction has taken place, the infants will be microcephalic. Both hydrocephalus and/or microcephalus can occur in either disease.

Pulmonary infiltrates may be present in either entity as well so that this finding adds little to our ability to differentiate the two. This child did not have evidence of pneumonitis until the day prior to death. In addition hepatosplenomegaly was present, another nonspecific finding. In toto, radiographically we are unable to consistently distinguish between the two entities. However, the pattern of intracranial calcification in this case is more suggestive of toxoplasmosis than cytomegaloviral disease.

DR. PERRY: We are left then with a differential between cytomegalic inclusion disease and toxoplasmosis. The history and physical findings in this case do not allow us to differentiate. CID infants can present with all of the physical findings found in this infant; the same can be said of toxoplasmosis.

We must then look to the laboratory for the answer. The serological tests that were available at the time of this infant's hospitalization were measurements of IgG antibodies. Interpretation of these tests in the newborn infant proposes a problem. If the mother had CID, toxoplasmosis, rubella or syphilis during pregnancy, she would produce IgG antibodies. These antibodies, because of their smaller molecular weight, cross the placental barrier. Therefore, the occurrence of IgG disease specific antibodies in the infant does not establish the diagnosis. IgG infant titers must be observed to rise to prove infection in the baby.

The complement fixation tests for CID and toxoplasmosis performed in this infant are really the only clue as to which disease is operative. The complement fixing antibody of CID is a reliable measurement of infection, therefore, the infant's titer of $<1:8$ does rule out CID on a serological basis. The complement fixing antibodies of toxoplasmosis are not so reliable in their appearance, quantity or duration. The negative complement fixation test for toxoplasmosis therefore does not rule out this illness. Presently we are able to measure serum IgM antibodies. These antibodies do not cross the placenta. If present in the infant's serum they indicate his own immunological response to infection.

The infant's terminal event appeared to be an overwhelming pneumonia. Since both CID and toxoplasmosis can cause pneumonitis no final answers were revealed. Bacterial cultures of

blood, urine and CSF were negative with this final event.

I, therefore, in conclusion can only make a probable diagnosis of toxoplasmosis with the facts available to me.

Clinical Diagnosis

- 1) Congenital toxoplasmosis.
- 2) Overwhelming pneumonia.

PATHOLOGICAL FINDINGS

DR. CIRILO SOTELO-AVILA: At autopsy an unusual combination of two relatively common transplacentally acquired infections were identified in this newborn infant: Toxoplasmosis and CID.

The autopsy body weight (2,500 gm), crown-heel length (44 cm), and head circumference (30 cm) were below the 10th percentile. The brain weighed 150 gm (normal 406 ± 55 gm); the gyri were greatly reduced in size and increased number. Coronal sections disclosed marked dilatation of the ventricular system; a paraventricular 3 mm band of necrosis and calcification and widespread cortical softening accompanied by gritty calcification. Microscopically there were numerous large cells with characteristic dense nuclear inclusions surrounded by a clear halo to give an "owl's eye" appearance. Within the cytoplasm of many of the cytomegalic inclusion cells there were aggregates of toxoplasma organisms containing a single, dark, eccentrically placed, round or oval nucleus (Fig. 3). Doubly infected cells accompanied by inflammation were also demonstrated in the retina of the only eye removed, and in the lungs, kidneys and liver. Cytomegalic inclusion cells were present in the thyroid gland, spleen and epicardium. The immediate cause of death was a massive, diffuse and recent intra-alveolar pulmonary hemorrhage.

In summary, this is the case of a forty-week-old black newborn infant who died at sixteen days of age with disseminated toxoplasmosis and cytomegalovirus infection. The clinical and roentgenographic manifestations did not allow us to differentiate between the two diseases. The complement fixation tests did not help either; in fact these tests were negative and this remains unexplained. With clinical and radiographic evidence of toxoplasmosis or CID, a second and third quantitative complement fixation test should have been performed on new specimens obtained two weeks apart. Isolation of the etiologic agents is another available mean of establishing infection. These infections will continue to be diagnosed at

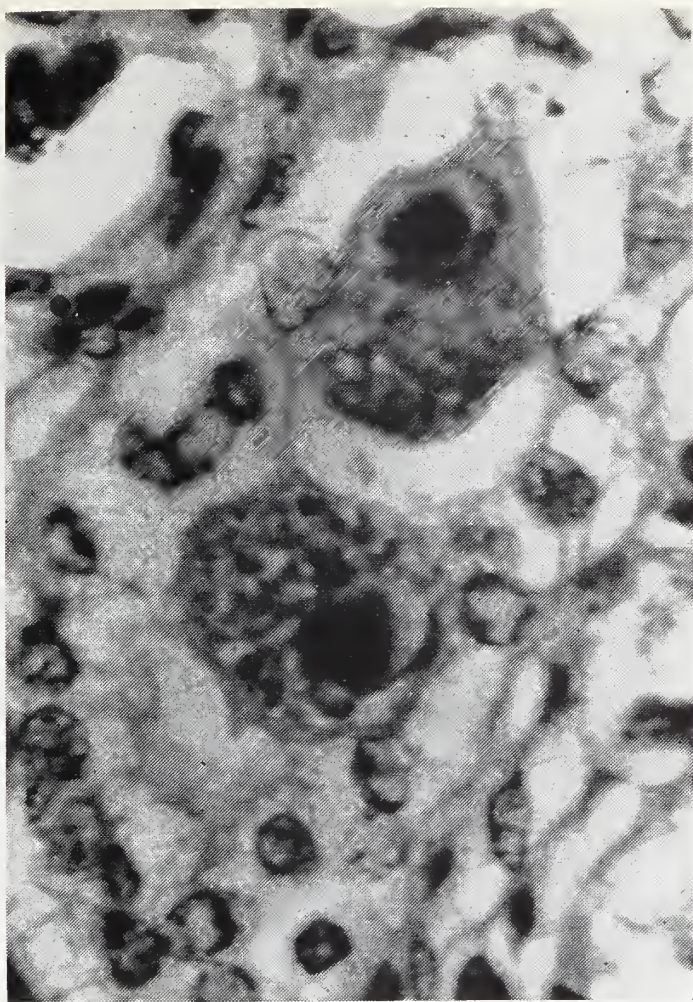


FIG. 3

autopsy as pathognomonic inclusions and characteristic cysts are noted in tissue specimens.

ANATOMIC DIAGNOSES:

- I. Coexistent congenital cytomegalovirus and toxoplasmosis with:
 - A. Necrotizing encephalomyelitis and leptomeningitis,
 - B. Chorioretinitis, and
 - C. Visceral inflammation in lungs, liver and kidneys.
- II. Cytomegalovirus infection involving
 - A. Thyroid,
 - B. Spleen, and
 - C. Epicardium.
- III. Microcephaly and microgyria, secondary to I.
- IV. Small for gestational age infant, secondary to I.
- V. Intra-alveolar pulmonary hemorrhage, terminal.

CLOSING REMARKS

DR. SOTELO-AVILA: Simultaneous infection by toxoplasma and cytomegalovirus has been reported in patients with Hodgkins disease,¹⁻³ melanoma,³ acute lymphocytic leukemia,³ and

myeloid metaplasia.⁴ Le Tan Vinh et al.⁵ first reported the coexistence of these two intracellular organisms in two premature infants. Toxoplasma cysts were present in the brain and cytomegalic cells in the parotid gland and kidneys of both infants. Demian et al.⁶ described the occurrence of both organisms within the same cell in a 2,300 gm stillborn male infant born to a 17-year-black diabetic mother. This unusual combination of cytomegalovirus infection and toxoplasmosis is probably more than coincidental and it raises important questions concerning the pathogenic mechanism involved. Cytomegalovirus and toxoplasma are both well recognized complications of chemotherapy and decreased immune response in patients with malignancy; their unexpected coexistence in an individual and the simultaneous intracellular infection implies more than a fortuitous relationship.

The simultaneous double infection has been reproduced in tissue culture by Gelderman et al.⁷ These authors noted that cytomegalovirus infected human fibroblasts are relatively resistant to infection by *Toxoplasma gondii* during the initial four days of virus infection. After five days, the fibroblasts become receptive to the protozoan parasite. This early period of host cell resistance to toxoplasma invasion and suppression of parasite replication, remains unexplained. The authors postulated the production of an inhibitor by the host cells as a reaction to cytomegalovirus. A second and less likely explanation is that cytomegalovirus infection depresses DNA-dependent RNA synthesis, and thereby deprives the toxoplasma of a vital protein supply.

Since toxoplasma^{8,9} induces interferon production, secondary virus infection is not likely to occur. Simultaneous infection by toxoplasma and rubella virus,¹⁰ and toxoplasma and Herpes virus³ have also been reported. Obscure biological symbiosis between certain viruses and toxoplasmosis appears to be possible.

REFERENCES

1. Goodman, ML, and Maher, E: Four Uncommon Infections In Hodgkin's Disease. *JAMA*, 198:1129, 1966.
2. Luna, MA, and Lichtiger, B: Disseminated Toxoplasmosis and Cytomegalovirus Infection Complicating Hodgkin's Disease. *Am J Clin Pathol*, 55:499-505, 1971.
3. Vietzke, WM, Gelderman, AH, Grimley, PM, and Valsamius, MP: Toxoplasmosis Complicating Malignancy. Experience at the National Cancer Institute. *Cancer*, 21:816-827, 1963.

4. Hemsath, FA, and Pinkerton, H: Disseminated Cytomegalic Inclusion Disease and Disseminated Toxoplasmosis in an Adult with Myeloid Metaplasia. Report of a case. *AM J Clin Pathol*, 26:36-41, 1956.

5. Le Tan Vinh, Tran Van Duc, Aicard, J, Rossier, A, and Thieffry, St: Association de toxoplasmose Congenitale et de Cytomegalie Chez le Nourrisson. *Arch Fr Pediatr*, 27:511-521, 1970.

6. Demian, SDE, Donnelly, WH, Jr, and Monif, GRG: Coexistent Congenital Cytomegalovirus and Toxoplasmosis in a Stillborn. *Am J Dis Child*, 125:420-421, 1973.

7. Gelderman, AH, Grimley, PM, Lunde, MN, and Rabson, AS: Toxoplasma gondii and Cytomegalovirus:

Mixed Infection by a parasite and a Virus. *Science*, 160:1130-1132, 1968.

8. Rytel, MW, and Jones, TC: Induction of Interferon in Mice Infected with Toxoplasma gondii. *Proc Soc Exp Biol Med*, 123:859-862, 1966.

9. Freshman, MM, Merigan, TC, Remington, JS, and Brownlee, IE: In Vitro and in vivo Antiviral Action of an Interferon-like Substance Induced by Toxoplasma gondii. *Proc Soc Exp Biol Med*, 123:862-866, 1966.

10. Alford, CA, Jr, Foft, JW, Blankenship, WJ, Cassady, G, and Benton, JW, Jr: Subclinical Central Nervous System Disease of Neonates: A prospective Study of Infants born with increased levels of IgM. *J Pediatr*, 75:1167-1178, 1969.

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THE COOPER REVIEW

Answer true or false unless otherwise indicated

(Answers found beginning on page 626)

1. NEUROLOGY

a) A 40-year-old woman gives a history of impaired hearing in right ear for about ten months and vague history of headaches. Hearing test reveals sensorineural deficit in right ear. Neurological examination shows decreased corneal reflex on the right side, and dysmetria on finger to nose test on the right side. The diagnostic test which will be least important in determining the underlying pathology is:

1. Skull X-rays
2. Spinal Fluid Examination
3. Tomogram of Internal Auditory Meatus
4. RISA Cisternogram (scan)
5. C.P. Angle Myelogram

b) In evaluating a patient with Myasthenia Gravis, a test dose of tensilon is given. How long before a response is noted and how long does this action last?

1. 1 min., 10 min.
2. 30 sec., 10 min.
3. 1 min., 5 min.
4. 30 sec., 5 min.
5. The patient dies

2. RHEUMATOLOGY

A 72-year-old male is brought to the emergency room in a comatose condition. There is no history available. His temperature is 102°F. Skin turgor is poor. There are no other abnormalities on general examination. Neck is supple and there are no focal neurological signs. He has a markedly swollen hot erythematous left knee. An arthrocentesis is performed in the emergency room, and 50 cc of cloudy fluid is removed and immediately is sent for a Stat synovianalysis. Laboratory reports several intracellular and extracellular calcium pyrophosphate crystals.

From the following list please select the one procedure that is not indicated in the subsequent management of this patient.

1. Draw a Stat blood sugar
2. Draw a Stat serum acetone
3. Draw a Stat serum calcium
4. Begin intravenous fluid
5. Cover with broad spectrum antibiotics

3. OB-GYN

During the past 20 years the relationship between cervical and endometrial carcinoma has been changing. TRUE or FALSE

4. Which of the following lesions has the best prognosis:

1. Malignant melanoma arising in a melanotic freckle of Hutchinson.
2. Malignant melanoma, superficial spreading type.
3. Nodular malignant melanoma.
4. Amelanotic malignant melanoma.
5. All of the above have the same prognosis.

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Rondomycin[®]

(methacycline HCl)

CONTRAINDICATIONS: Hypersensitivity to any of the tetracyclines.

WARNINGS: Tetracycline usage during tooth development (last half of pregnancy to eight years) may cause permanent tooth discoloration (yellow-gray-brown), which is more common during long-term use but has occurred after repeated short-term courses. Enamel hypoplasia has also been reported. **Tetracyclines should not be used in this age group unless other drugs are not likely to be effective or are contraindicated.**

Usage in pregnancy. (See above **WARNINGS** about use during tooth development.) Animal studies indicate that tetracyclines cross the placenta and can be toxic to the developing fetus (often related to retardation of skeletal development). Embryotoxicity has also been noted in animals treated early in pregnancy.

Usage in newborns, infants, and children. (See above **WARNINGS** about use during tooth development.)

All tetracyclines form a stable calcium complex in any bone-forming tissue. A decrease in fibula growth rate observed in prematures given oral tetracycline 25 mg/kg every 6 hours was reversible when drug was discontinued.

Tetracyclines are present in milk of lactating women taking tetracyclines.

To avoid excess systemic accumulation and liver toxicity in patients with impaired renal function, reduce usual total dosage and, if therapy is prolonged, consider serum level determinations of drug. The anti-anabolic action of tetracyclines may increase BUN. While not a problem in normal renal function, in patients with significantly impaired function, higher tetracycline serum levels may lead to azotemia, hyperphosphatemia, and acidosis.

Photosensitivity manifested by exaggerated sunburn reaction has occurred with tetracyclines. Patients apt to be exposed to direct sunlight or ultraviolet light should be so advised, and treatment should be discontinued at first evidence of skin erythema.

PRECAUTIONS: If superinfection occurs due to overgrowth of nonsusceptible organisms, including fungi, discontinue antibiotic and start appropriate therapy.

In venereal disease, when coexistent syphilis is suspected, perform darkfield examination before therapy, and serologically test for syphilis monthly for at least four months.

Tetracyclines have been shown to depress plasma prothrombin activity; patients on anticoagulant therapy may require downward adjustment of their anticoagulant dosage.

In long-term therapy, perform periodic organ system evaluations (including blood, renal, hepatic).

Treat all Group A beta-hemolytic streptococcal infections for at least 10 days.

Since bacteriostatic drugs may interfere with the bactericidal action of penicillin, avoid giving tetracycline with penicillin.

ADVERSE REACTIONS: **Gastrointestinal** (oral and parenteral forms): anorexia, nausea, vomiting, diarrhea, glossitis, dysphagia, enterocolitis, inflammatory lesions (with monilial overgrowth) in the anogenital region.

Skin: maculopapular and erythematous rashes; exfoliative dermatitis (uncommon). Photosensitivity is discussed above (See **WARNINGS**).

Renal toxicity: rise in BUN, apparently dose related (See **WARNINGS**).

Hypersensitivity: urticaria, angioneurotic edema, anaphylaxis, anaphylactoid purpura, pericarditis, exacerbation of systemic lupus erythematosus.

Bulging fontanels, reported in young infants after full therapeutic dosage, have disappeared rapidly when drug was discontinued.

Blood: hemolytic anemia, thrombocytopenia, neutropenia, eosinophilia.

Over prolonged periods, tetracyclines have been reported to produce brown-black microscopic discoloration of thyroid glands; no abnormalities of thyroid function studies are known to occur.

USUAL DOSAGE: Adults—600 mg daily, divided into two or four equally spaced doses. More severe infections: an initial dose of 300 mg followed by 150 mg every six hours or 300 mg every 12 hours. Gonorrhea: In uncomplicated gonorrhea, when penicillin is contraindicated, 'Rondomycin' (methacycline HCl) may be used for treating both males and females in the following clinical dosage schedule: 900 mg initially, followed by 300 mg q.i.d. for a total of 5.4 grams.

For treatment of syphilis, when penicillin is contraindicated, a total of 18 to 24 grams of 'Rondomycin' (methacycline HCl) in equally divided doses over a period of 10-15 days should be given. Close follow-up, including laboratory tests, is recommended.

Eaton Agent pneumonia: 900 mg daily for six days.

Children—3 to 6 mg/lb/day divided into two to four equally spaced doses.

Therapy should be continued for at least 24-48 hours after symptoms and fever have subsided.

Concomitant therapy: Antacids containing aluminum, calcium or magnesium impair absorption and are contraindicated. Food and some dairy products also interfere. Give drug one hour before or two hours after meals. Pediatric oral dosage forms should not be given with milk formulas and should be given at least one hour prior to feeding.

In patients with renal impairment (see **WARNINGS**), total dosage should be decreased by reducing recommended individual doses or by extending time intervals between doses.

In streptococcal infections, a therapeutic dose should be given for at least 10 days.

SUPPLIED: 'Rondomycin' (methacycline HCl): 150 mg and 300 mg capsules; syrup containing 75 mg/5 cc methacycline HCl.

Before prescribing, consult package circular or latest PDR information.

Rev. 6/73



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**from the
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J. E. BALLENTINE

MEDICAL DIGEST

NEWS OF INTEREST TO DOCTORS IN TENNESSEE

NATIONAL HEALTH INSURANCE IS ON THE THRESHOLD . . . Is the time just months away when medical bills will be paid by National Health Insurance? . . . Very likely . . . Congressional leaders have indicated NHI will be the subject of intense debate in 1974. With at least eighteen different proposals to choose from, Congress might soon enact one of them into law . . . Only 3% of American adults rank health care as a top priority national problem, a recent Harris survey found. The eighteen proposals now before Congress vary widely in their range and scope . . . Some plans would pay all medical bills; others would share expenses with consumers, and in some cases, the consumer's share would be scaled accordingly to his ability to pay . . . Others would protect people mainly from the catastrophic expenses of severe or protracted illness; others would cover both catastrophic and ordinary medical expenses . . . Some would place most responsibility for people's health care in the hands of government; others would prefer the private sector to do the job, with varying degrees of government involvement . . . In the recent survey, it was found that people believe the focus on the needs of the poor and the chronically ill ought to be covered by catastrophic medical expenses. The Department of Health, Education and Welfare is conducting a detailed cost analysis of the competing NHI proposals.

* * * * *

TENNESSEE FOUNDATION FOR MEDICAL CARE, INC., DESIGNATED PSRO . . . The Tennessee Foundation for Medical Care, Inc., 2400 Crestmoor Road, Nashville, has been designated as the Professional Standards Review Organization for PSRO Area II in Tennessee . . . The notice of intention to enter into agreement with the Foundation appeared in the Federal Register on May 23, subject to satisfactory completion of the contract negotiation process . . . HEW had determined that the Tennessee Foundation for Medical Care, Inc., is qualified to assume the duties and responsibilities of a PSRO, and that the organization fulfills requirements as a non-profit professional organization whose membership is voluntary and comprises 25% of the licensed Doctors of Medicine or Osteopathy engaged in active practice in the designated area.

* * * * *

CONTINUING MEDICAL EDUCATION . . . During the month of April, the TMA's Committee on Continuing Medical Education conducted two more site visits for the purpose of evaluating continuing medical education programs . . . As a result, two hospitals--Oak Ridge Hospital and the Murfreesboro VA Hospital--have been accredited. The action applies for a two-year period of accreditation.

* * * * *

SCIENTIFIC AFFAIRS COMMITTEE DEVELOPS 1975 PROGRAM . . . In a two-day meeting, May 25-26, the Committee on Scientific Affairs developed its

program plan for the 1975 TMA Annual Meeting . . . The second part of the meeting was concluded in a meeting with representatives of the organized medical specialty societies in Tennessee who plan to meet concurrently with TMA in 1975 . . . The theme for the scientific presentation will be "Recent Advances." Subjects and speakers will be:

- (1) "Diagnostic Radiology" by Eugene C. Klatte, M.D., University of Indiana
- (2) "GI Endoscopy" by John R. Collins, M.D., Chattanooga
- (3) "Laboratory Diagnosis" by E. E. Muirhead, M.D., Memphis
- (4) "Antibiotic Therapy" by Allen L. Bisno, M.D., Memphis
- (5) "Blood and Blood Products" by David E. Jenkins, Jr., M.D., Nashville

At the May 26 meeting, officers of twelve medical specialty societies met with the Committee, and developed the general format and time for their sessions to be conducted at the 1975 Annual Meeting in Chattanooga, April 10-12.

* * * * *

WHAT'S NEW? . . . Prentiss-Hall has just released "The Medical Malpractice Case: A Complete Handbook." It is a new legal handbook of the latest procedural information handling medical malpractice litigation . . . It is written for attorneys and includes pointers on detecting and screening out mentally ill people who completely imagine malpractice. Advice is included on all of the problems attorneys encounter in trying a malpractice case.

* * * * *

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- Through the Physician Placement Service which assists members who wish to relocate in a new area or to secure an associate.
- Through Public Service programs designed to enhance the status of the profession and its individual members.
- By conducting annual sessions which include both scientific and socio-economic activities to impart knowledge and set policies.
- Through more than 38 standing and special committees active in all fields of endeavor related to the medical profession.
- By providing loans and scholarships to worthy medical students through the Tennessee Medical Association Student Education Fund, Inc.
- Through work with pre-payment plans and government medical programs to achieve equitable fees and policies.
- Through liaison with other professional groups to ensure high standards of health care.
- By advocating and supporting legislation beneficial to the health and well-being of the public.

* * * * *

BOARD OF MEDICAL EXAMINERS APPOINTMENTS . . . Four physicians have been appointed, or reappointed, to the State Board of Medical Examiners. Those appointed for terms which will expire April 30, 1978 are: Drs. Tinnin Martin, Jr., Memphis; Howard R. Foreman, Nashville; John H. Burkhardt, Knoxville; and Durwood L. Kirk, Chattanooga. Julian K. Welch, Brownsville, is the fifth member of the Board will continue to serve.

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COMMUNICATIONS • LEGISLATION

HADLEY WILLIAMS, ASSISTANT EXECUTIVE DIRECTOR

TMA MEMBERS CAN NOW CHECK ON THEIR LEGISLATORS . . . The current issue of the TMA Newsletter mailed to all TMA members, includes the voting record of all 99 members of the House of Representatives and 33 Senators on 17 selected health care issues considered by the 88th Tennessee General Assembly. An explanation of each vote is also included along with TMA policy on each bill as developed by the House of Delegates, Board of Trustees and/or Legislative Committee. Each TMA member can now see exactly how their Representative or Senator voted on issues that pertained to medical care. The information, compiled by TMA's Executive Assistant for Legislation, John R. Coles, was taken from the official House and Senate Clerk's Journals and should be of considerable value to physicians in assessing their Legislator's views on health care legislation.

* * * * *

KENNEDY WANTS PERIODIC RELICENSING OF MDs . . . Senator Edward Kennedy (D-Mass) along with Senator Jacob Javits (R-NY) has introduced health manpower legislation (S.3585) which includes a controversial provision that would virtually require all graduates of medical and other health professional schools to work for 2 years in places where health care is lacking plus periodic relicensing of MDs and Dentists every 6 years. Nationwide standards for licensing would also be included with the right to adopt more stringent standards given to states. The bill would also require the Secretary of HEW to certify all hospital residency training programs and thereby exercise some control over the number of physicians entering particular specialties. Also included is a provision to make service in the National Health Service Corps mandatory for health professionals who receive government aid during their training. The professional schools involved are those that train physicians, osteopaths, dentists, podiatrists, veterinarians, optometrists, pharmacists and schools of public health. A separate proposal (S. 3586) covers nurses. Over \$6 billion is authorized to be spent over the next 5 years to implement the two bills.

* * * * *

AMA FIELD REPRESENTATIVE FRED ANDRE' RESIGNS . . . Fred Andre', Atlanta based AMA Field Representative for Tennessee and four other Southern states, has resigned to become the first Executive Director of the Medical Liability Commission. Plans call for a Chicago office to be open July 1 with activities to center on legal doctrines and liability insurance, patient safety, provider qualifications and data collection. Andre's replacement has not been named by AMA to date.

in Brief

A summary of AMA, medical & health news

American Medical Association / 535 North Dearborn Street / Chicago, Illinois 60610 / Phone (312) 751-6000 / TWX 910-221-0300

New Jersey adopted a unified AMA membership resolution. The House of Delegates of the Medical Society of New Jersey voted to require its members to be AMA members, effective Jan. 1, 1975. New Jersey was the third state this year to vote favorably on unified membership. In February the Medical Society of the State of New York voted to institute the program at the beginning of next year, and in April the Missouri State Medical Society voted to prepare bylaws changes for consideration at its 1975 meeting. Six states--Arizona, California, Hawaii, Illinois, Oklahoma and Wisconsin--already have unified membership requirements.

A major priority named in a resolution by the American Assn. of Medical Society Executives is membership recruitment. The resolution calls for an active educational program among AAMSE members to develop and promote membership recruitment programs at county and state levels. AAMSE pointed out that there are about 137,000 physicians who enjoy some benefits of the national federation without contributing financially as members.

"The Quality of Life" is a new three-volume series of books sponsored by the AMA. It is based on the three national AMA conferences on the quality of life. The first two volumes, *The Early Years* and *The Middle Years*, are available immediately. The third volume, *The Later Years*, is expected to be completed by October. Each volume costs \$12.50 and the entire set may be purchased for \$31.50. Get order forms from the Office of the Assistant to the Executive Vice President, AMA Headquarters, or from the publisher, Publishing Sciences Group, Inc., 411 Massachusetts Ave., Acton, Mass. 01720. Send orders, with payment, directly to the publisher, not to AMA.

Arrested for impersonating a physician, Bartholomew Jose Francisco de Araujo Lima Netto has been sentenced to prison in New Jersey. Netto had practiced medicine illegally in a dozen states. He was arrested after a hospital administrator read a story about him *American Medical News*. A telephone call to the AMA's Dept. of Investigation to verify his credentials could have stopped the impersonation ten years ago.

By dialing 911, residents in 32 states and Puerto Rico soon will be able to summon emergency help. The universal emergency telephone system is part of a two-year program scheduled to begin July 1. It is administered by the National Academy of Sciences and funded by a \$15-million grant from the Robert Wood Johnson Foundation. It is already in operation in about 250 communities, serving about 10% of the U.S. population.

There is a greater health risk from mass starvation than from pesticides and chemical fertilizers, says a new AMA book. *Environmental Quality and Food Supply* is an outgrowth of a 1972 AMA symposium. It is available for \$13.95 from the publisher, Futura Publishing Co., 295 Main St., P.O. Box 298, Mount Kisco, N.Y. 10549.

There were 366, 379 physicians in the U.S. at the end of 1973, reports the AMA. This is an increase of 9,845 over 1972. Of the 295,257 physicians were reported as providing patient care. 201,435 were office based and 93,822 were hospital based. The number of physicians engaged in medical teaching was 6,183; in administration, 11,959; and in research, 8,332. A decrease in the number of general practitioners from 55,348 in 1972 to 53,946 last year was noted. In 1973, 86,924 physicians were engaged in "medical specialties" and 91,549 in "surgical specialties." The number classified in "other specialties" was 91,948.

Available from AMA: The 26th edition of AMA's *American Medical Directory*, containing biographical data on U.S. physicians and foreign physicians temporarily living in the U.S. Pre-publication cost for the four-volume hard cover directory is \$110 for the U.S., possessions, Canada and Mexico and \$125 for all other countries. After June 30, the cost will go up \$15 in each category. Order OP-64 from Order Dept., AMA Headquarters...*Directory of Women Physicians in the United States* (OP-419), a supplement to the 26th edition of the *American Medical Directory*. The pre-publication price, effective until July 31, is \$5 in the U.S., possessions, Canada and Mexico and \$8 in all other countries. After July 31, the cost will go up \$5 in each category. They are expected to be shipped by mid-July. Write Order Dept., AMA Headquarters.



E. KENT CARTER

**president's
page**

Not By Laws Alone

Our legislative mills, especially the National Factory in Washington have become so busy, government so complex and bureaucratic, that with these pressures our National Law Factory, Congress, can no longer pass laws. The so-called laws should be labeled enabling Acts rather than Laws. They should be called enabling Acts because they permit government employees, not our legally elected representatives, to govern us by regulations. The favorite term in Washington referring to regulations is called "fleshing out the law."

There are at least four types of regulations:

1. Explicit—This regulation is required or stipulated by the law.
2. Implicit—This type of regulation is deemed necessary to clarify points in the law and an example of this will be the definition of active practice as used in Social Security Amendments which gave us Peer Review.
3. Administrative—These regulations are deemed necessary for administration of the law, for example, as to who will administer Peer Review.
4. Policy—This type of regulation is said to respond to the intent of Congress but with no previous legislation to set a precedent or use as a guideline.—The number of physicians in a designated Peer Review area is an example. These regulations may start in the lower levels of authority of the department which has been elected to administer the law. They may gradually work their way upward to be signed by the secretary of the department, and usually published in the *Federal Register*.

If they are not contested within a prescribed length of time, usually thirty days, they become law.

If a law seems to imply the need for regulations, and the regulation fits the four criteria named above, namely: explicit, implicit, administrative or policy, it is a valid regulation and there is little that can be done to change it.

However, if the law is silent in any area to which a regulation might apply, it may be challenged and changes may be brought about before the established deadline after the initial publication. In fact, the regulation may be withdrawn if the objections are strong enough, and the law is silent enough on the subject.

These regulatory pitfalls are with us. Medicine must now not only be familiar with the law but also familiar with the regulations promulgated to administer it. Medicine has two recourses to this regulatory challenge.

1. Challenge the regulation in the prescribed time before the issuing authority, with enough facts to refute the necessity or the propriety of the regulation.
2. If this cannot be done, Medicine must resort to the courts and make a legal challenge such as was threatened by the AMA in the recent case of the regulation concerning preadmission certification.

It behooves us all to devote time and effort not only to the study of the legislation, but the regulations that are issued from both National and State Capitols, lest we be engulfed by those who seek to absorb us.

Yours truly,

President

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JULY, 1974

editorials

Medical Audit As CME

Of the reams written on assessment of health care, by whatever name, the most logical and reasonable statement I have seen on the subject is the one by the Association for Hospital Medical Education published elsewhere in this issue (page 616). Incidentally, it states better than we ever have the position taken for the past three years by your own Committee on Continuing Medical Education. It is beautifully simple in its concepts and embodies the two requisite parts of assessment, i.e., quality of care and cost containment, which are referred to respectively as physician *effectiveness* and *efficiency*.

Critical to the whole process is the simple fact

that a patient enters the hospital because he has a problem, and he and the physician have reached an agreement as to what hospitalization is to accomplish in ameliorating that problem. This is generally largely ignored because, for want of acceptable record room terminology, it seldom finds its way into the record. The physician's effectiveness and efficiency are measured by his achievement of the previously agreed upon outcome, and how quickly and at what cost.

An important point is that while effectiveness is a measure of desired outcome, subtle deviations from accepted procedures will show up as lack of efficiency, i.e., increased length of stay. For example, improper therapy will not necessarily result in a poor outcome, but may prolong the stay by increasing morbidity, or may unnecessarily increase the cost.

There are several ways to go about this, and it can be done manually with the TAP system of the JCAH, or the much maligned (wrongly) QAP system of the American Hospital Association. These do not, however, measure efficiency, but only effectiveness, and there is no assurance of the correctness of the diagnosis or that procedures or therapy were always appropriate, if the outcome was satisfactory. They will not therefore, alone, satisfy the requirements of either the PSRO regulations or a good CME program. In order to do it properly you need one of the automated systems, of which three are currently available: the MAP portion of PAS/MAP, the Medical Care Evaluation of HUP, or the program of the Tennessee Foundation for Medical Care.

The Foundation's program is the most versatile and flexible, and can be tailored to fit your own needs. The system is functioning, and is receiving abstracts and sending out data in three forms: a Standard Report, an Exception Report, and a Pattern Report—the important one for your CME program.

A second paper in this issue, "Medical Audit as a Tool for Determining your CME Needs," tells how you can use your medical audit in a continuing medical education program. This again is something your own CME Committee has been preaching for three years, but our experience tells us many of you have missed it. So we'll try again from another angle. Its author is a member of the Commission on Professional and Hospital Activities, the owner of the PAS/MAP system. Whether you are using that system or another, what he says applies equally well—as long as you are using *some* system.

By now you *should* have plugged in to an audit system of some kind (I am not talking about a system for determining utilization, but for *quality* assessment), and you should be using it to determine your educational needs. If you are, great! (But mighty few of you are, as of this writing.) If you are not, won't you begin tomorrow, for the sake of your patients, your colleagues, and yourselves? And on behalf of your CME Committee, I urge you to give serious consideration to the Tennessee Foundation for Medical Care. It has an excellent system, and it's yours!

J.B.T.

On the Art of Medicine

Nowhere are the basic differences in philosophy of surgeons and non-surgeon physicians more apparent than in the treatment of thyroid disease. The argument (or, sometimes, quarrel) has of course been going on since the first anti-thyroid drugs were introduced, and has gained impetus with the introduction of radio-iodine therapy. The basic fact is that surgeons like to operate, hence they are surgeons, and non-surgeons do not and so they are not. This is reflected in their preferential management of patients.

There are certain clear indications for thyroid surgery, such as the hyperthyroidism in the pregnant patient and in the very young, in patients with very large goiters, toxic nodules, thyroiditis, and so on. There are also clear indications for radioiodine therapy, such as concurrent disease which makes surgery hazardous, and previous thyroid surgery. Between these two clearly delineated areas is a large patch of gray, with considerable latitude for personal interpretation. This becomes apparent in reading the excellent papers by Drs. Martin and Sawyers, Bell, and Holcomb, published in the front of this issue of the JOURNAL. Each quotes figures from reputable workers to support his position, and who's to say one is right and the other wrong?

There are many factors to be considered in the treatment of a patient. It has been my experience that though a surgeon and non-surgeon, such as, for example, Dr. Sawyers and Dr. Bell, might make generalizations seemingly far apart, they might also, and even not unlikely would, reach conclusions not too different as to the treatment of a given patient. This comprises the art of medicine, and it is incomprehensible to the layman. And this is why medical decisions cannot be left to non-medical people.

One of my medical school teachers, a fine surgeon and also one of the best doctors I have ever known, once told us that he looked forward to the day when there would be a medical treatment for everything but traumatic damage, and that if that occurred in his lifetime, he would be willing to learn to do something else. And he was a man who liked to operate. Wouldn't it be wonderful if we could all so subordinate our own personal preferences that we would think always only of what is best for our patients? Our modes of treatment might not actually change very much, but a lot of other things would!

J.B.T.



FRERE, J. MARSH, Chattanooga, died May 28, 1974, age 80. Graduate of Tulane University, 1920. Member of Chattanooga-Hamilton County Medical Society.

HOWARD, WILLIAM ALBERT, Cookeville, died May 14, 1974, age 87. Graduate of University of Tennessee Medical School, 1908. Member of Putnam County Medical Society.

HULLENDER, B. NICHOLAS, Chattanooga, died May 18, 1974, age 38. Graduate of Medical College of Georgia, 1965. Member of Chattanooga-Hamilton County Medical Society.

KELLER, ALVIN EMMANUEL, Nashville, died May 23, 1974, age 75. Graduate of Johns Hopkins University, 1923. Member of Nashville Academy of Medicine.

NUNES, WILLIAM THEODORE, Donelson, died May 4, 1974, age 44. Graduate of the University of Tennessee Medical School, 1953. Member of Nashville Academy of Medicine.

PATTERSON, JR., CARL STEPHEN, Trenton, died May 29, 1974, age 35. Graduate of the University of Tennessee, 1969. Member of Consolidated Medical Assembly of West Tennessee.

SULLIVAN, SAMUEL J., Cleveland, died May 9, 1974, age 73. Graduate of the University of Tennessee, 1926. Member of the Bradley County Medical Society.

WALKER, TROY A., Clarksville, died May 2, 1974, age 66. Graduate of the University of Arkansas, 1942. Member of the Montgomery County Medical Society.

programs and news of medical societies

Chattanooga-Hamilton County Medical Society

The Society held its regular monthly meeting on May 7, 1974.

Dr. Samuel Wilkins, Jr., professor of surgery at Emory University was the guest speaker.

Knoxville Academy of Medicine

The Academy held its monthly meeting on May 14, 1974 at KAM Headquarters building. The Scientific program consisted of the following:

Medicine—William N. Kelly, M.D., Chief Division of Rheumatic and Genetic Diseases, Department of Medicine, Duke University Medical Center, spoke on, "Diagnosis and Treatment of Gout."

Urology—An area urologist directed a Pyelogram Conference.

Ophthalmology—Paul E. Wittke, M.D., presented the highlights of the Dedication Symposium of the Kresge Eye Institute of Wayne State University.

Radiology—Robert S. Moore, M.D., was in charge of a program on "Xeroradiography of the Breast."

Anesthesia—The meeting was held on May 6 with Cecil D. Rowe, M.D., speaking on, "Flexible Laryngoscope."

Pathology—The pathologists met on May 15 with area pathologists bringing slides of interest for discussion.

Marshall County Medical Society

The Society met on May 28, 1974 and heard a scientific discussion by Michael Glasscock, M.D., nationally noted Neuro-Otologist, who gave a lecture, movie and question and answer session on emergency treatment of the "Dizzy Patient," and also "Diseases of the Middle Ear, Cochlea and Retrocochlea" area.

Nashville Academy of Medicine and Davidson County Medical Society

The Board of Directors met on May 21, 1974 and approved a recommendation of the Mediation Committee to establish a special Academy committee to assist members with emotional and physical difficulties. The Board also endorsed the implementation of a public education project on the hazards of motor-driven cycles, and approved a request of the Medicine and Religion Committee to conduct a seminar in October.

new members

The JOURNAL takes this opportunity to welcome these new members of the Tennessee Medical Association.

BRADLEY COUNTY MEDICAL SOCIETY

Charles W. Arnold, Jr., M.D., Cleveland
A. Estes Felker, M.D., Cleveland
William W. Johnson, M.D., Cleveland
Fred A. Muths, M.D., Cleveland

CONSOLIDATED MEDICAL ASSEMBLY OF WEST TENNESSEE

William R. Sullivan, M.D., Bells

CUMBERLAND COUNTY MEDICAL SOCIETY

Philip M. Deatherage, M.D., Crossville

DAVIDSON COUNTY MEDICAL SOCIETY- NASHVILLE ACADEMY OF MEDICINE

Georgina A. Abisellan, M.D., Nashville
Gerald F. Atwood, M.D., Nashville
E. Tom Carney, D.D.S., Nashville
Henry P. Coppolillo, M.D., Nashville
Peter R. Dornenburg, M.D., Nashville
Paul C. Gomez, M.D., Nashville
Harry Lee Greene, M.D., Nashville
Don C. Ludington, Jr., M.D., Hendersonville
A. Ray Mayberry, M.D., Nashville
Pepito Y. Salcedo, M.D., Old Hickory
Bruce C. Sinclair-Smith, M.D., Nashville
Herman David Sorensen, M.D., Nashville
Ira D. Thompson, Jr., M.D., Nashville
Thomas G. Thurston, III, M.D., Nashville

HAMBLEN COUNTY MEDICAL SOCIETY

James Cooper Mahoney, M.D., Jefferson City
Donald C. Thompson, M.D., Morristown

HENRY COUNTY MEDICAL SOCIETY

John M. Senter, M.D., Paris

MEMPHIS-SHELBY COUNTY MEDICAL SOCIETY

Robert M. Boehm, Jr., M.D., Memphis
Terry E. Geshke, M.D., Memphis
Charles E. Hutchins, M.D., Memphis
Linda L. Hutchins, M.D., Memphis
S. Thomas Lee, M.D., Memphis
James J. Presswood, M.D., Memphis

RUTHERFORD COUNTY MEDICAL SOCIETY

Charles E. Goodman, Jr., M.D., Murfreesboro

SULLIVAN-JOHNSON COUNTY MEDICAL SOCIETY

Richard D. Baker, M.D., Kingsport
John Kent Blazier, M.D., Kingsport
Howard B. Condren, M.D., Kingsport

WASHINGTON-CARTER-UNICOI COUNTY MEDICAL ASSOCIATION

Robert D. Jones, Jr., M.D., Elizabethton
Clinton Steve Webb, M.D., Elizabethton
James F. Wood, M.D., Johnson City

WILLIAMSON COUNTY MEDICAL SOCIETY

Roberto S. Mauricio, M.D., Franklin

THIS MONTH IN WASHINGTON (From Washington Office, AMA)

With the exception of a possible last-minute catastrophic bill to the liking of both the Senate and the House, the prospects for a national health insurance (NHI) bill this year appear to be fading. Preoccupied with the possible impeachment, plus other matters, the pace of House and Senate hearings on NHI has definitely slowed, despite a strong desire on the parts of both Republicans and Democrats to take a widely popular health measure with them to the polls this November.

Its late April testimony on the NHI before the House Ways and Means Committee behind it, the American Medical Association again advanced its medicredit proposal for NHI before the Senate Finance Committee at the end of May.

Senate Finance Committee chairman Russell Long (D-La.), and other committee members heard AMA president Russell Roth, M.D., president-elect Malcolm Todd, M.D., and Ernest Livingstone, M.D., chairman of the AMA Legislative Council, support the Medicredit measure.

"As the nation's largest association of actively practicing physicians, the ones who will be called upon to provide the professional services which are contemplated under any program which may be authorized by Congress, we feel that our viewpoints are extraordinarily important." Dr. Roth told the committee.

"If we are to meet the principal needs not only of the aged and the poor but of the vast middle income group, it would seem we must endeavor to provide basic coverage for medical service and, if possible, add to this protection against ruinous catastrophic major medical expense (Senators Long and Abraham Ribicoff (D-Conn.), are sponsors of a catastrophic-only type NHI proposal).

Long asked about the merits of a tax credit as opposed to a payroll tax. Dr. Roth said the tax credit is the most equitable in that it relies on the federal income tax which provides an accurate gauge of family income. The money retained by the individual for health insurance does not "have to make the round trip to Washington."

* * *

First witness before the Senate Finance Com-

mittee hearing was Health, Education, Welfare Secretary Caspar Weinberger who urged that a NHI bill "should have the highest priority item in the closing months of this Congress." He expressed hope that the areas of disagreement between competing NHI proposals would not be found insurmountable.

The Secretary, however, criticized all of the competing proposals, but with special attention to the Mills-Kennedy and the Health Security bill of organized labor. "Both vest too much power with the federal government," Weinberger said.

At the sometimes stormy meeting, Senator Vance Hartke (D-Ind.), and Senator Clifford Hansen (R-Wyo.) chided the Secretary for criticizing the AMA plan, pointing out that Medigap had powerful backing.

Sen. Hansen said that when negotiating time arrives there should be strong consideration of the Medigap bill which has 182 sponsors, including five members of the Finance Committee and 11 members of the House Ways and Means Committee.

Hansen said the Council of Economic Advisors, and the Brookings Institute have recommended the tax credit method of financing employed by Medigap should be used in broad federal programs. Weinberger said he preferred tax credits to a Social Security payroll tax, but thought general revenue financing was best. Hansen said controls could impede productivity and cause personnel to leave the health system.

Sen. Hartke said Medigap has more sponsors than all other NHI bills combined. Weinberger said he would keep that in mind while conferring with Congress. "You are going to have to deal with 182 of us somewhere along the line," Hartke said. "Not just 'President' Kennedy or 'President' Mills."

Hartke said that despite Weinberger's criticism of Medigap the fact is that all NHI bills basically deal with financing, including the Administration's plan which doesn't provide anything concrete about changing the system.

Sen. Abraham Ribicoff (D-Conn.), said the Administration was being deceptive about the true costs of its program. He contended Weinberger is telling the American people they will have a \$55 billion "free lunch."

"You are dealing with the most complex social and economic program in the history of our nation," Ribicoff said. "If all sides can't agree to work out a compromise there will be no program."

Legislative Committee Visits Washington



TMA's Legislative Committee made its 13th consecutive annual visit to Washington, June 21-22, to personally discuss pending health care legislation with members of the Tennessee Congressional Delegation.

Pictured above are: 1) Chattanooga MDs Lee Arnold, Tom Buttram, and David Turner with Congressman LaMar Baker and Senator Bill Brock. 2) First District Congressman Jimmy Quillen flanked by Drs. Nat Hyder and TMA President, E. Kent Carter. 3) Dr. George Mayfield making a point with 6th

District Representative Robin Beard 4) Dick Fulton, 5th District Representative, acted as moderator during a Tennessee Country Ham Breakfast hosted by the committee. 5) Knoxville physicians John Purvis, William Miller and John Burkhart with 2nd District Congressman John Duncan. 6) Drs. Tom Ballard and Kelley Avery with 7th District Congressman Ed Jones. 7) Dr. A. Roy Tyrer with 8th District Congressman Dan Kuykendall. Senator Howard Baker and 4th District Congressman Joe L. Evins are not pictured.

Senator Long added that Americans must be given all of the facts about exactly what a NHI bill would cost them, pointing out that he couldn't "... see a free lunch in any of them."

* * *

Meanwhile, on the House side the Ways and Means Committee completed the second month of one-day-a-week hearings on NHI.

It would appear that almost every health related organization in the country wishes to be heard. For example, one day's hearing saw the following organizations testify before the powerful House Committee: Blue Cross Association, National Medical Association, American Osteopathic Society, National Council of Health Services, American Podiatry Association, National Council of Community Health Centers, Veterans of Foreign Wars, and Americans for Democratic Action.

* * *

The Professional Standards Review Organization (PSRO) program is off to "an incredibly bad start" and encountering increasing physician resistance, the American Medical Association has told Congress.

AMA President Russell Roth, M.D., testifying before the Senate Finance subcommittee on health, said 13 state medical societies have formally declared for repeal of the PSRO law and that 29 societies support a policy of amendment and/or repeal. (As of May 7, 1974.)

"We cannot be precise in numbers, but it seems evident that, as understanding of the PSRO law spreads, the resistance to it grows," said Dr. Roth.

The health subcommittee, chaired by Sen. Eugene Talmadge (D-Ga.), slated two days of hearings on the spreading controversy over the PSRO law.

Dr. Roth said "the best efforts of the legislators involved, the staff of the Senate Finance Committee, the staff of the PSRO administrative office in HEW, and physicians from AMA, from assorted state medical societies and specialty medical organizations, have not succeeded in creating in the profession the climate of acceptance and cooperation essential to success. The fault does not lie with the sincerity or intensity of the effort to cooperate, it lies with the basic ineptitudes of the statute."

The AMA President said it has been seriously

proposed that because of the bad start on PSRO it may be best to fall back, regroup, and start over again. The official AMA position, he noted, is that repeal may need to be considered if amendatory patchwork is unacceptable.

Robert Hunter, M.D., chairman of the AMA special advisory committee on PSRO and a member of the AMA board of trustees, described to the senators the AMA's extensive "constructive efforts" to cooperate with congress and the government to make PSRO work.

Edgar T. Beddingfield, Jr., M.D., vice chairman of the AMA's council on legislation, said "the PSRO law has created a great deal of confusion and misunderstanding."

Sections on norms of health care services are patently contradictory and we would anticipate that the net result would be that the norms of care would be viewed as rigid federal minimum requirements, Dr. Beddingfield said. "Patients and the profession alike are legitimately concerned with the prospect of cookbook medicine." He recommended that the "norms" should be guides for care and should be clearly understood to be initial points of evaluation and review. Furthermore, Dr. Beddingfield said, such guides must not be substituted for the medical judgment of individual physicians in the delivery of health care services.

During the two days of hearings, some 20 medical associations, state societies, and specialty groups testified their general misgivings with respect to the workability of the statute. Throughout the hearings Senator Wallace Bennett (R-Utah), stoutly defended PSRO—"I won't live long enough to see repeal of PSRO"—against, at times, shouting and hostile witnesses.

medical news in tennessee

Dr. James R. Gay Named to U.T. Post

Dr. James R. Gay, a New Mexico medical educator, has been appointed Associate Vice Chancellor for Academic Affairs at the University of Tennessee Medical Units in Memphis.

Dr. Gay is the coordinator of the New Mexico Regional Medical Program and serves as assistant dean and associate professor of the Department of Surgery at the University of New Mexico School of Medicine in Albuquerque.

Dr. Edmund D. Pellegrino, chancellor of the

U-T Medical Units, said Dr. Gay will assume his new post July 1.

As associate vice chancellor he will share responsibilities for academic and clinical affairs at the Memphis campus and at the Clinical Education Centers in Knoxville and Chattanooga. He also has an appointment as professor in the Department of Neurosurgery of the College of Medicine.

Noted Surgeon Heads Department at U-T

A nationally-known heart surgeon and pioneer of open heart surgical techniques has been named chairman of the Department of Surgery at the University of Tennessee College of Medicine.

Dr. James W. Pate has been named to succeed Dr. Harwell Wilson, who is retiring as chairman to spend more time teaching and in private practice.

Dr. Pate served as head of experimental surgery for the Navy at Bethesda, Maryland, during and after the Korean War and while there developed the freeze-dried process of preserving arteries for use as grafts. He also was a co-discoverer of the bioelectrical causes of blood clots in arteries and veins.

He was the first surgeon to replace a heart valve with an artificial valve in a child and the first to replace a heart valve and implant a pacemaker in an emergency operation following a gunshot wound of the heart.

Laboratory Licensing Service to Administer Proficiency Examinations for Clinical Laboratory Personnel

Public Health Laboratory Licensing Service has arranged with Educational Testing Service, Princeton, New Jersey, to administer Proficiency Examinations for Clinical Laboratory Personnel on the first Friday in June, September, and December of each year. ETS administers the examination in March. Registration deadlines are four weeks before the exam date.

Proficiency Examinations are used by Laboratory Licensing Service to qualify candidates for the State medical laboratory technician examinations. Persons who are not graduates of approved laboratory schools and who have one year of acceptable verifiable laboratory work experience may be admitted to the State medical laboratory technician examination by scoring the average or higher on Proficiency Exams.

For additional information, contact Laboratory

Licensing Service, Room 358, Capitol Hill Building, Nashville, TN 37219, phone: 615-741-3826.

personal news

DR. WILLIAM B. ACREE, Ridgely, has been named to the executive committee of the West Tennessee Heart Association.

DR. CRAWFORD W. ADAMS, Nashville, has been elected president of the Nashville Cardiovascular Society, Inc.

DR. ROBERT P. BALL, Oak Ridge, has been named "Outstanding Physician of the Year" by TMA at its annual meeting in Gatlinburg.

DR. G. H. BERRYHILL, Jackson, was honored recently when the mayor proclaimed "G. H. Berryhill Day" honoring the retired physician.

DR. JOHN H. BURKHART, Knoxville, has been appointed to the Board of Medical Examiners by Governor Dunn. Other Tennessee physicians on the board are: DR. TINNIN MARTIN, JR., Memphis; DR. HOWARD R. FOREMAN, Nashville; and DR. DURWOOD L. KIRK, Chattanooga.

DR. HENRY BURKO, Nashville, has been elected Secretary-Treasurer of the Middle Tennessee Radiological Society. Others elected were: DR. THOMAS R. DUNCAN, Brentwood, president; and DR. WILLIAM R. MASSEY, Gallatin, vice president.

DR. RONALD CALDWELL, Bristol, has been installed as president of the Bristol Cancer Association.

DR. LLOYD C. ELAM, Nashville, has been awarded an honorary degree by St. Lawrence University in Canton, New York.

DR. WALTER W. FREY, Nashville, has been elected Secretary-Treasurer of the Nashville Academy of Ophthalmology and Otolaryngology. Others elected were: DR. PERRY HARRIS, Nashville, vice president; and DR. SPENCER P. THORNTON, Nashville, president.

DR. BEN D. HALL, Johnson City, has been re-elected trustee of the American Society of Internal Medicine.

DR. ROBERT H. HUTCHISON, JR., Nashville, has been elected to the Board of Directors of the National Family Planning Forum.

DR. WILLIAM N. JERNIGAN, Columbia, was honored recently when the Mayor proclaimed "Dr. William N. Jernigan Day." Dr. Jernigan plans to leave Columbia after practicing pediatrics for 15 years.

DR. L. A. KILLEFFER, Harriman, was honored recently by the Roane County Chamber of Commerce when he was presented the Outstanding Businessmen Award.

DR. STEPHEN KRAUSS, Knoxville, has been named vice president of the Knox County Unit, American Cancer Society.

DR. DONALD S. LaFONT, Jackson, has been installed as president of the West Tennessee Heart Association.

DR. HOSSEIN MASSOUD, Chattanooga, has been elected to fellowship in the American Academy of Pediatrics.

DR. GORDON McCALL, Maryville, was recently elected to serve a three-year term on the Board of Directors of the East Tennessee Heart Association. He was also presented an award for leadership.

DR. JOSEPH YOUNG McCOIN and DR. CLAUD HENRY TAYLOR, Cleveland, were recently honored by the Bradley County Medical Society for "more than 30 years' service to the medical profession."

DR. CARL A. NELSON, JR., Maynardville, has been elected president of the Tennessee Association of Blood Banks.

DR. JOHN R. NELSON, Knoxville, has been elected president of the East Tennessee Heart Association.

DR. JAMES J. NICKSON, Memphis, has been named the first director of the newly-created Memphis Cancer Research and Clinical Center.

DR. JAMES W. PATE, Memphis, has been named chairman of the department of surgery at the University of Tennessee Medical units.

DR. GREER RICKETSON, Nashville, has been named an honorary alumnus of the Vanderbilt University School of Medicine in recognition of his many years of service to the school.

DR. DAVID TEPPER and DR. C. W. KIMSEY, Chattanooga, were recently presented the 1973-74 Service Award by the Hamilton County Association for Children with Learning Disabilities for their influence in establishing the association.

DR. LEE L. WILLIAMS, Knoxville, was presented the Religious Service Award by the Knoxville Chapter of the National Conference of Christians and Jews.

announcements

CALENDAR OF MEETINGS

1974	NATIONAL
Sept. 18-21	American Thyroid Association, Stouffer's Riverfront Inn, St. Louis
Oct. 4-11	American Society of Clinical Pathologists, Sheraton Park, Shoreham, Statler-Hilton and Mayflower Hotels, Washington
Oct. 4-11	College of American Pathologists, Sheraton Park, Shoreham, Statler-Hilton, and Mayflower Hotels, Washington
Oct. 5-12	Western Orthopedic Association, Hilton Honolulu, Honolulu
Oct. 14-17	American Academy of Family Physicians, Los Angeles
Oct. 17-19	American Association for the Surgery of Trauma, Homestead, Hot Springs, VA
Oct. 19-24	American Academy of Pediatrics, St. Francis and San Francisco Hilton, San Francisco
Oct. 20-23	American College of Gastroenterology, Americana, Bal Harbour, FL
Oct. 21-25	American College of Surgeons, 60th Annual Clinical Congress, Miami Beach
Oct. 24-27	American Academy of Child Psychiatry, Fairmont Hotel, San Francisco



continuing education opportunities

The continuing medical education accreditation program of TMA has full approval by AMA's Council on Medical Education. If the continuing medical education program of your hospital or medical society is accredited by TMA's committee, you may receive for your attendance at its functions Category 1 credit for the AMA Physician's Recognition Award. If you wish information as to how your hospital or society may receive accreditation, write: Director of Continuing Medical Education, Tennessee Medical Association, 112 Louise Avenue, Nashville, Tennessee 37203.

Vanderbilt University CME Course Listings

13th Annual Seminar in Psychiatry

Central State Psychiatric Hospital; Tenn. Dept.
of Mental Health; Meharry Medical College . . . May

For further information contact:

Paul E. Slaton, M.D., Director
or

Marilyn Short, Administrative Associate

Vanderbilt Continuing Education

305 Medical Arts Building

Nashville, Tennessee 37212 Tel. 615-322-2716

Clinical Training Program For Practicing Physicians

Opportunities for advanced clinical education for physicians in family practice and in various subspecialties have been developed by the School of Medicine and the Division of Continuing Education of Vanderbilt University. The practicing physician, with the guidance of the participating department chairman, can plan an individualized program of one to four weeks to meet recognized needs and interests. The experience will include contact with patients, discussion with clinical and academic faculty, conferences, ward rounds, learning individual procedures, observing new surgical techniques, and access to excellent library resources. Experience in more than one discipline may be included.

Participating Departments and Divisions

Anesthesiology	Bradley E. Smith, M.D.
Medicine	Grant W. Liddle, M.D.
Cardiology	Gottlieb C. Friesinger, III, M.D.
Chest Diseases	James D. Snell, M.D.
Dermatology	Robert N. Buchanan, Jr., M.D.
Endocrinology & Diabetes	Grant W. Liddle, M.D.
Gastroenterology	Steven Schenker, M.D.
Hematology	Robert C. Hartmann, M.D.

Infectious Diseases	Zell A. McGee, M.D.
Renal Diseases	H. Earl Ginn, M.D.
Clinical Pharmacology	John A. Oates, M.D.
Neurology	Gerald M. Fenichel, M.D.
Obstetrics & Gynecology	Paul W. Griffin, M.D.
Pathology	Virgil S. LeQuire, M.D.
Pediatrics	David T. Karzon, M.D.
Psychiatry	Marc H. Hollender, M.D.
Radiology	John R. Amberg, M.D.
Surgery	
General	H. William Scott, Jr., M.D.
Neurological	William F. Meacham, M.D.
Ophthalmology	James H. Elliott, M.D.
Oral	H. David Hall, D.M.D.
Pediatric	James A. O'Neill, M.D.
Plastic	John B. Lynch, M.D.
Thoracic & Cardiac	Harvey W. Bender, M.D.
Urology	Robert K. Rhamy, M.D.
Cancer Chemotherapy	Vernon H. Reynolds, M.D.

ELIGIBILITY: All licensed physicians are eligible.

ADMINISTRATIVE FEE: \$200.00 per week.

CREDIT: American Medical Association Physician's Recognition Award and American Academy of Family Physician's Continuing Education accreditation.

APPLICATION: For further information and application, contact:

Paul E. Slaton, M.D., Director, Continuing Education
305 Medical Arts Building
Nashville, TN 37212 Tel. 615-322-2716

Audio-Cassette Directory Available

Many doctors rely upon audio-cassette tape-recordings for part of their continuing medical education, usually by subscribing to Audio-Digest or Accel or one of the other well-known educational services. There are, however, many other medical programs that are available on audio-cassettes, often without charge.

To aid the physician in locating these little-known but often useful programs, Cassette Information Services of Los Angeles has published its 1974 Directory of Spoken-Voice Audio-Cassettes. Although the services for the health sciences—medicine, nursing, pharmacy, dentistry, hospital administration—comprise a large portion of this 108-page directory, it lists programs in all fields and interests. These range from courses for accountants and management executives to inspirational and entertainment tapes for shut-ins. There is also a large selection of "how-to-do-it" programs, including many on such topics of interest to the physician as hypoglycemia, acupuncture and the Lamaze method of childbirth preparation.

The CIS Directory is not a catalog, but rather a compendium of program titles and subjects that can be found on audio-cassettes, a brief description of each (including price), and from whom the tape or more information may be obtained. The directory itself is

available for \$5.00 from Cassette Information Services, Box 17727, Los Angeles, CA 90057.

* * *

The University of Michigan School of Public Health

The University of Michigan School of Public Health is offering a graduate program of study in Mental Retardation and Related Disabilities.

The postgraduate program is a 21-month course leading to an MPH degree and qualification in the field of Mental Retardation. Fees are regular school tuition in the School of Public Health; and terms begin in September and January.

For further information contact:

Arthur W. Fleming, M.D.
The University of Michigan
School of Public Health
Ann Arbor, MI 48104

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WHEN? Monday-Friday, 8:00 a.m. to 7:00 p.m., CDT; Saturday, 8:00 a.m. to 11:00 a.m., CDT.

For telephone numbers, list of specific topics, and procedures:

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2601 Highland Avenue
Birmingham, Alabama 35205
Ask for *DIAL ACCESS SYSTEM* catalogue.

Diabetes-Endocrinology Center At Vanderbilt Offers Tests

As a service to Middle Tennessee's practicing physicians and research scientists, Vanderbilt's Diabetes-Endocrinology Center is now able to provide certain diabetes-related diagnostic assays and tests through its newly established Diabetes Service and Research Support Laboratory, Room A-5203, in the Vanderbilt Medical Center.

Although this laboratory is "sponsored" by the Center, it is not supported by the Center's federal research funds and must, therefore, make modest charges for its services both to the Center's investigators and to physicians and researchers who are not directly affiliated with the Center.

For additional information, please call (615) 322-2197 or, at night, (615) 356-5397.

Annual Otolaryngologic Assembly

The Annual Otolaryngologic Assembly of 1974 will be held October 26 through November 1, 1974, in the Eye and Ear Infirmary of the University of Illinois Hospital. The Department of Otolaryngology of the

Abraham Lincoln School of Medicine, University of Illinois at the Medical Center, offers a condensed basic and clinical program for practicing otolaryngologists under the direction of Emanuel M. Skolnik, M.D., with Burton J. Soboroff, M.D., as co-chairman. This program is designed to bring to specialists current information in medical and surgical otorhinolaryngology.

Interested otolaryngologists should direct their inquiries to the mailing address: OTOLARYNGOLOGY, P.O. Box 6998, Chicago, IL 60680.

Workshop on the Surgery Of Chronic Ear Disease

The Department of Otolaryngology of the University of Illinois, Abraham Lincoln School of Medicine, announces a Workshop on the Surgery of Chronic Ear Disease to be held October 2 through 4, 1974.

The workshop will deal with canal preservation in surgery for cholesteatoma. The technic of canal preservation will be taught by closed circuit surgical color television and temporal bone dissection. Seminars will be held to discuss the difficulties and complications of these technics.

Interested registrants may write directly to the Department of Otolaryngology, University of Illinois Hospital Eye and Ear Infirmary, 1855 West Taylor Street, Chicago, Illinois 60612.

Maternal and Child Health Program

The Maternal and Child Health Program of the University of California School of Public Health at Berkeley announces postgraduate courses of instruction for pediatricians, obstetricians, and other physicians interested in receiving training in the field of Maternal and Child Health. These programs all lead to the degree of Master of Public Health. Tax-exempt Fellowships are available, consisting of support for the trainee and his dependents, tuition and fees.

Program areas at the present time include nine-month programs in Maternal and Child Health, Day Care and the Preschool Child, Health of School-Age Children and Youth, and Maternal Health and Family Planning. Twenty-one month programs in Care of Handicapped Children, Comprehensive Health Care and Perinatology are also available.

Applications are now being accepted for the group entering September, 1975. For information, write to Helen M. Wallace, M.D., School of Public Health, University of California, Berkeley, California 94720.

Schedule for Upcoming CME Programs

July 15-

August 11

SLAKEBITE, with Findlay E. Russell, M.D., Professor of Neurology and Director, Laboratory of Neurological Research, University of Southern California School of Medicine, Los Angeles. SKIN TESTING FOR TB, with John A. Crocco, M.D., Director of Pulmonary Disease Section, St. Vincent's Hospital and Medical Center, New York, and Downstate Medical Center, Brooklyn.

PARASITIC INFESTATION: LOOK FOR LICE, with Silas E. O'Quinn, M.D., Professor of Dermatology and Dean of Medicine; and Harold Trapido, Ph.D., Professor of Tropical Medicine and Medical Parasitology, both at Louisiana State University School of Medicine, New Orleans.

August 12-

September 8 **RECEPTOR DRUGS: TIME BORROWERS IN SHOCK**, with Leon I. Goldberg, M.D., Professor of Medicine and Pharmacology, Director of Clinical Pharmacology, Emory University School of Medicine, Atlanta, Georgia.
LOCAL ANESTHESIA: THREE EFFECTIVE TECHNIQUES, with William C. North, M.D., Professor and Chairman, Department of Anesthesiology, University of Tennessee, Memphis.
THE PROBLEM PELVIC, with Philip Sarrel, M.D., Associate Professor of Obstetrics and Gynecology, Yale University Medical School, New Haven.

For more information about NCME write The Network for Continuing Medical Education: 15 Columbus Circle, New York, New York 10023.

PAS and MAP Tutorial Sessions*

These two-day sessions teach representatives from *member hospitals* how to do medical audit studies using their own PAS system reports. PSRO health care legislation and the way CPHA resources can help both hospitals and PSROs are presented.

7- 8 August 1974
 11-12 September 1974
 2- 3 October 1974
 6- 7 November 1974
 11-12 December 1974

PAS and MAP Institutes*

PAS and MAP Institutes are held for *nonmember hospitals and health care organizations* to present a comprehensive review of the various CPHA programs. The Institutes emphasize applications to the PSRO portion of PL 92-603.

5 September 1974
 5 December 1974

*Academic Credit

Fully approved by AMA Council on Continuing Medical Education. Attendance applies toward AMA Physician's Recognition Award (Category 1).
Acceptable for elective hours from American Academy of Family Physicians

All sessions are held at CPHA in Ann Arbor, unless otherwise specified.

For information, write Commission on Professional and Hospital Activities, 1968 Green Road, Ann Arbor, Michigan 48105.

PAS and MAP Regional Workshops*

Regional workshops, open to both *member and nonmember hospitals and health care organizations*, teach how to do medical audit studies, using sample PAS and MAP reports. CPHA resources to help hospitals and PSROs are discussed.

27 August 1974 —Edmonton, Alberta, Canada
 29 August 1974 —Denver, Colorado
 26 September 1974—Washington, D.C.
 8 October 1974 —Vancouver, British Columbia, Canada
 11 October 1974 —Honolulu, Hawaii
 12 November 1974—Charlotte, North Carolina
 14 November 1974—New Orleans, Louisiana
 17 December 1974 —Oklahoma City, Oklahoma

Course In Techniques for the Health Record Analyst

The health record analyst's role as an expert in *how* to evaluate the quality of patient care is explored in detail in these intensified sessions. They are open to *member and nonmember hospitals* and health care organizations. The PAS system reports are used to teach the techniques of health record analysis.

29 July—2 August 1974
 12-16 August 1974
 16-20 September 1974
 7-11 October 1974
 11-15 November 1974
 16-20 December 1974

Coding and Abstracting Institutes

Open to *all medical record personnel using H-ICDA*, these one-day sessions are designed to review the basic principles of H-ICDA coding. Methods of PAS abstracting are also discussed.

16-18 July 1974 —Edmonton, Alberta, Canada
 13-15 August 1974 —Seattle, Washington
 17-19 September 1974—Boston, Massachusetts
 8-10 October 1974 —Chicago, Illinois
 19-21 November 1974—Los Angeles, California
 3- 5 December 1974 —St. Louis, Missouri

National Conference on Advances In Cancer Management

AMERICAN CANCER SOCIETY—NATIONAL CANCER INSTITUTE

PART I

TREATMENT AND REHABILITATION

November 25-27, 1974

Waldorf-Astoria Hotel—New York City

PART II

DETECTION AND DIAGNOSIS

May 1-3, 1975

The Denver Hilton—Denver, Colorado

**AMERICAN CANCER SOCIETY'S
NATIONAL CONFERENCE ON
GYNECOLOGIC CANCER**

September 18-20, 1975
Marriott Hotel—Philadelphia, Pennsylvania

**AMERICAN CANCER SOCIETY—NATIONAL
CANCER INSTITUTE
EIGHTH NATIONAL CANCER CONFERENCE**

September 20-22, 1976
Regency Hyatt Hotel—Atlanta, Georgia

These professional educational conferences will be acceptable for Credit Hours in Category I for the Physician's Recognition Award of the American Medical Association and for Elective Hours by the American Academy of Family Physicians.

**University of Kentucky
College of Medicine**

The University of Kentucky College of Medicine will present two identical, comprehensive reviews designed in part to prepare family physicians for the annual ABFM examination scheduled for late October. Approximately 70-74 topics will be presented by University of Kentucky and guest faculty.

The Fifth Family Medicine Review will be offered September 15-21, 1974, and again on October 6-12, 1974, at the University of Kentucky Medical Center. Program Chairman: Frank R. Lemon, M.D. Registration fee: \$195. Fifty hours of AAFP credit have been requested.

For further information contact:

Ronald D. Hamilton, M.D., *Director*
Continuing Education
College of Medicine
University of Kentucky
Lexington, KY 40506

**Fifth Annual Autumn Pediatric Symposium
Sept. 20-21, Vanderbilt Children's Hospital**

The Children's Hospital of Vanderbilt University announces the Fifth Annual Autumn Pediatric Symposium, to be held Sept. 20-21. The topic will be Pediatric Gastroenterology and Nutrition—*Diagnosis and Management of Common Problems*.

Guest faculty will include William Schubert, M.D., Department of Pediatrics, University of Cincinnati School of Medicine, Cincinnati, OH; Phil Sunshine, M.D., Department of Pediatrics, Stanford University Medical Center, Palo Alto, CA; and Harvey Sharp, M.D., Department of Pediatrics, University of Minnesota Medical Center, Minneapolis, MN.

For Information, write:

Harry L. Greene, M.D.
Department of Pediatrics
Vanderbilt University School of Medicine
Nashville, TN 37232

Recent Advances in Allergy Symposium

A four-day medical symposium entitled, "Recent Advances in Allergy," will be held at The Homestead, in Hot Springs, VA, from August 19-22, 1974. The medical seminars will be held from 8:00 a.m. until 10:00 a.m. each day. A golf and tennis tournament will be held in conjunction with this meeting, beginning each day at 10:00 a.m.

A wide variety of subject material of interest to all physicians will be presented by outstanding specialists.

For further information contact:

Claude A. Frazier, M.D.
4-C Doctors' Park
Asheville, NC 28801

**International Conference on the Physician
And Population Change**

From September 4-6, 1974 in Stockholm, Sweden, the World Medical Association in association with The World Federation for Medical Education, The International Planned Parenthood Federation and The World Health Organization will convene to provide a world forum in which the physician can examine, with experts from other disciplines, the responsibilities and opportunities facing the physician in meeting the present world population challenge and to recommend action.

Expert panels will introduce the following half day discussions:

- . . . Medicine and Demography
- . . . Family Health, Family Planning and Factors Affecting Fertility
- . . . The Role and Attitude of Physicians
- . . . The Role of Medical Associations and Medical Educational Institutions in Population Change

For further information, write:

Sir William Refshauge, Secretary General
The World Medical Association, Inc.
10 Columbus Circle
New York, New York 10019

Statement on Health Care Assessment By Association for Hospital Medical Education*

INTRODUCTION

Society has set new goals for American medicine. From discovering and developing methods to cure, ameliorate and prevent disease, the emphasis has shifted to delivering cure, amelioration and prevention of diseases to the greatest number of people at the lowest possible unit cost. AHME believes that reorientation of American medicine to these new goals can best be accomplished through education.

Education of practicing physicians should consist of identifying reasonable and relevant objectives of patient management and encouraging their attainment by a system of appropriate rewards. Dictating methods and processes—and punishing those who do not comply—merely produces resistance to the objectives which these methods and processes are intended to accomplish. We reject the concept that change can be accomplished by imposing blueprints or by tearing down existing systems.

WEAKNESSES OF PRESENT METHODS

The method of health care assessment most widely advocated today, evaluates physician performance by the degree to which the physician conforms with pre-established criteria for the process of care. In addition, it is assumed that these processes as well as the cost and all other characteristics of care must be related to a diagnosis.

Conformity with pre-established process criteria is not a desirable quality by which to judge physician performance because:

- 1) The public is not interested in whether their diagnoses have been managed “by the book.” The public wants to know whether the best possible results have been obtained at the least possible cost.

* Adopted at the meeting of the Executive Committee, Nov. 6, 1973. Reprinted by permission of the Association for Hospital Medical Education, 1911 Jefferson Davis Highway, Suite 1003, Arlington, Va. 22202.

- 2) Requiring conformity with processes and methods stifles initiative, downgrades and, therefore, discourages, ingenuity and creates resistance to the objectives, which the processes are intended to accomplish.
- 3) There is no assurance that adherence to process criteria, whether developed by experts or by peers, will produce the best possible results—nor that it will lower costs.

Use of diagnoses as a means of correlating data describing physician performance and cost of care is inappropriate because:

- 1) Physicians treat patients—not diagnoses.
- 2) Diagnoses are merely labels applied to structural or functional abnormalities.
- 3) It is not the existence of the abnormality but its impact on the patient's life and the benefit obtainable by correction of the abnormality which justify use of medical resources and the cost of care for any particular patient.

NEED FOR BETTER METHODS

In view of the need of the Professional Standard Review Organizations for methods by which physicians can account to the public for the cost and quality of medical care, it is imperative that new and better methods of assessing physician performance be developed and tested.

GENERAL PRINCIPLE

Since the public will eventually judge physician performance by results obtained and by economy in use of health care resources in obtaining these results, *effectiveness* and *cost effectiveness* should be the qualities by which physician performance is evaluated. (Emphasis added—Ed.)

EFFECTIVENESS AND EFFICIENCY

Direct measurement of the effectiveness and cost-effectiveness of medical care is particularly relevant to episodes of hospitalization which represent the most cost intensive phase of medical care and are likely to include clearly identifiable outcomes.

The decision to hospitalize is the result of a physician-patient relationship. When a patient is hospitalized, physician and patient usually have come to an understanding as to the main reason for hospitalization and of what hospitalization is to accomplish. Unfortunately, this agreement does not have any standing in record room termi-

nology, which requires that physicians furnish a discharge diagnosis in terms of a pathological entity and an admitting diagnosis which is no more than a guess of what the discharge diagnosis will be.

These requirements obscure the reason why the patient is being hospitalized and make it difficult, if not impossible, to base judgment of physician performance on objective data derived from record room abstracts.

If instead of an admission diagnosis, physicians were required to state a reason for admission and a related objective of hospitalization, the physician's achievement of this objective (his *effectiveness*) and his economy in the use of hospital resources to achieve these objectives (his cost effectiveness or *efficiency*) could be used as a measure of physician performance.

For most hospital admissions, appropriate outcome is eventually achieved. For this reason, measuring *physician effectiveness* will reveal only the grossest deficiencies in physician performance. More subtle shortcomings of physician performance such as poor judgment in choice of tests ordered, initial management based on erroneous diagnosis, failure to institute optimal therapy and

failure to recognize secondary or underlying diseases or complications are more likely to become apparent as *physician inefficiency*, i.e., delay in recovery, prolongation of hospital stay and greater use of hospital resources.

The efficient physician, by achieving a correct diagnosis more promptly, by relieving symptoms and disability sooner, lessens human suffering and thus can be said to have provided better care. In hospital practice, at least, efficiency is therefore a sensitive quantifiable measure of physician performance and of care received by patients.

EDUCATIONAL OBJECTIVES

Review of the efficiency with which a group of physicians has achieved their management objectives for various categories of reasons for admission, can then yield standards of efficiency. These standards are based on what physicians do rather than on what physicians say they should do, and will therefore have more validity than a consensus of opinions. *Because the standards describe objectives to be achieved by the group rather than processes to be followed by each physician, achievement of these standards can be encouraged by an educational effort.*

* * * * *

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Class 4—Surgeons—specialist, Anesthesiologists, Cardiac Surgeons, Otolaryngologists—No Plastic Surgery, Surgeons—General (Specialists in general surgery), Thoracic Surgeons, Urologists, Vascular Surgeons.

Class 5—Surgeons—specialists, Neurosurgeons, Obstetricians-Gynecologists, Orthopedists, Otolaryngologist—Plastic Surgery, Plastic Surgeons.

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	25/75	100/300	200/600
Class 1	\$103	\$132	\$154
Class 2	\$181	\$232	\$262
Class 3	\$310	\$409	\$458
Class 4	\$413	\$545	\$607
Class 5	\$516	\$681	\$755

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from the tennessee department of public health

Quality Information Key To Meeting Patient Nutritional Needs

Demands on physicians for nutritional education and treatment are reaching unprecedented levels. Approximately one in three patients entering a physician's office will have a nutrition-related problem. The public needs and wants nutritional help, but many of America's physicians are not prepared to deal with these problems.

Members of the medical profession are expressing concern over the difficulty physicians sometimes encounter in their efforts to keep informed of current nutrition research and practices. The problem of keeping abreast of technical developments within the field of nutrition is compounded by changes in many people's eating habits brought on by the increase in the cost of living, and the bombardment of the public with vast amounts of misinformation stemming from nutrition's current popularity within the mass media. Sorting and communicating the reliable information from the unreliable is a task often entrusted to the physician.

The need for expertise in nutrition is increasingly underscored by the serious health problems existing throughout the United States attributable to poor nutrition from both the standpoint of the malnourished hungry (insufficient quantity and/or quality) and the malnourished obese. Two-thirds of today's public health and chronic disease problems may be related to the way Americans eat.

The practicing physician plays a critical role in the nutritional care of his patients. Patients frequently ask for nutritional advice. They express concern about the interrelationships of diet and health. They seek assurances about diets found in popular lay magazines, or those recommended by friends. They request information on the new vitamin-mineral preparations which are an essential part of their self-prescribed illness-prevention therapy. They ask specific questions about the appropriateness of food and beverage items included in any type of diet, normal or otherwise. Perhaps, most importantly, the patients do not ask enough advice of their physicians and rely instead on information passed on by friends or the mass media.

To provide accurate and realistic nutritional

advice to patients, physicians need sound knowledge in all phases of nutrition. Since time and resources will not generally allow a physician to gain such knowledge of the field, it is advisable to obtain the necessary expertise from other sources. The nutritionist and/or dietitian can effectively furnish assistance in providing nutrition information to patients. She can provide professional consultation on:

- (1) the wide variety of foods available on the consumer market
- (2) the nutrient compositions of food products
- (3) the interactions between certain chemical compounds in foods and drugs
- (4) cultural and ethnical food habits of patients
- (5) both normal and therapeutic nutrition applied to individuals in all age categories experiencing a variety of nutritional needs.

At present, nutrition services are available on request in each county health department. Public health nutritionists can assist physicians in providing reliable nutrition consultation to those patients referred to the health departments. In each of the state's five metropolitan counties, one or more public health nutritionists are members of the regular health department staff and provide nutrition services on a regular basis. In the smaller counties, local health department staffs call on regional public health nutrition consultants as needs arise.

Public Health's involvement in nutrition stems from its traditional concern for preventive health measures. Four of the most prevalent chronic health problems in America today are nutrition related. These are coronary heart disease, hypertension, obesity and diabetes—all serious problems that demand an increasing share of the physician's talent for diagnosis and management.

The leading cause of death in the United States today is heart disease. It is estimated that one-third of American men between age 25 and 45 have serum cholesterol levels of 260 or more. Although there remains much disagreement among experts, most physicians now feel that diet is one of the contributing factors toward the development of heart disease.

Closely related to heart disease is hypertension

—a condition Vanderbilt University's Specialty Center of Research (SCOR) has determined can be successfully managed through effective diet or through a combination of diet and drugs. Nearly one out of ten persons suffers from hypertension, and, in addition to heart problems, it is a common cause of strokes and the major risk factor in hardening of the arteries.

Depending upon the criteria used, it is estimated that there are 40 to 80 million obese Americans. The U.S. Public Health Service states that obesity "is one of the most prevalent health problems in the United States today." If one considers obesity in terms of age, the figures are even more startling. Data collected shows that 35 percent of all American men and 40 percent of American women age 40 and over are at least 20 percent overweight.

Obesity is probably the most perplexing nutrition problem faced by the physician. Medical science offers no quick and easy method of weight reduction. Patients are tempted from many directions by such answers as crash diets, miracle pills and magic diet formulas. Since working with patients on weight reduction diets has proven to be so time-consuming, many physicians are not able to devote the time required for successful management and follow-up. The group approach to weight reduction is enabling the physician to better combat this health hazard. Behavioral modification is emerging as one of the most effective means of obtaining long range results. The patient must be encouraged to focus his attention on environmental influences, and must subsequently be required to gain control over his behavior.

Another widespread nutrition related health problem is diabetes. There are approximately 40,000 diagnosed cases in Tennessee, and an estimated 40,000 undiagnosed cases. Although diet does not necessarily cause diabetes, it is definitely a major factor in the control of the disease.

The fad and cult dietary regimes are confronting physicians with still another significant nutrition problem. Although the major portion of these are found in the larger cities, groups are migrating to the rural areas in an attempt to "return to nature." Many of these individuals and groups adhere to a strict "vegetarian" diet. While vegetarian sometimes implies a nutritionally inadequate nutrient intake, it has been common knowledge for centuries that persons can consume a vegetarian diet (particularly the ovo-lacto-vegetarian diet) and maintain proper health. However, the Zen macrobiotic and Yen and Yan dietary philosophies are particularly dangerous.

People are becoming extremely interested in the food they eat—its nutritive value, its additives and its cleanliness. Today, food is one of the family's greatest expenses, especially in the low socio-economic groups. The current trends of rapidly rising food costs and possible future food shortages may result in drastic changes in man's eating patterns. Much more nutrition information, or knowledge of the effects of food in relation to specific problems of the patient, should be provided. All health professionals should be committed to the goal of assuring that people receive the best information possible in order that they may achieve adequate nutritional status.



from the tennessee department of mental health

Help for Cerebral Palsy Victims

New hope is being expressed in the faces of individuals in Tennessee who are handicapped by cerebral palsy, as concerned agencies and citizens work toward developing comprehensive services. Fragmented services have long been available to limited numbers of cerebral palsied children and adults, but until recently few efforts had been made toward filling comprehensive needs and developing cooperative services.

Some 750,000 children and adults in the U.S. have cerebral palsy; more than 250,000 are under 21 years of age. It is estimated that 20 out of every 5,000 people manifest one or more symptoms of cerebral palsy, which occurs in 1 out of about 200 live births. Thus, at the present birth rate, approximately 15,000 infants are born each year with this condition, and there are an estimated 20,000 citizens in Tennessee with its symptoms.

There are three types of cerebral palsy: spastic, athetoid, and ataxic. The spastic individual moves stiffly and with difficulty. The athetoid has involuntary and uncontrolled movements. The ataxic has a disturbed sense of balance and depth perception. Any damage to brain tissue, whether caused by defective development, injury or disease, may produce cerebral palsy. Chief among the causes is an insufficient amount of oxygen reaching the fetal or newborn brain, the result of an interruption of the oxygen supply by premature separation of the placenta from the wall of the uterus, by an awkward birth position, by prolonged labor or interference with the umbilical circulation. Other causes may be premature birth, RH or A-B-O blood incompatibilities, infection of the mother with German measles or virus diseases in early pregnancy, and meningitis.

Cerebral palsy cannot be cured, but the handicapping effects can be reduced through proper management and treatment. "Management" of cerebral palsy is a better word than "treatment," and consists of helping the child achieve maximum potential in growth and development. This should be started as early as possible, with identification of the very young child who may have developmental disorders. A management program can then be instituted to include atten-

tion to the child's motor, sensory, intellectual, social and emotional development, utilizing physicians, therapists, educators, nurses, social workers and other professional persons to assist the family and the child. Certain medications, orthopedic surgery, and braces are used in some cases to improve nerve and muscle coordination or to prevent and correct deformity.

Some measures of prevention are possible today. Pregnant women are tested routinely for the Rh factor and, if Rh negative, they can be immunized within 72 hours after the pregnancy termination and thus prevent consequences of blood incompatibility in subsequent pregnancies. If the woman has not been immunized, the consequences of blood incompatibility in the newborn can be prevented by exchange transfusion. Other preventive programs are directed toward reducing exposure of pregnant women to virus and other infections, unnecessary exposure to x-rays, drugs, and medications, and the control of diabetes, anemia and other nutritional deficiencies. Of great importance is optimal well-being prior to conception and adequate prenatal care.

The public is becoming aware that the birth of a cerebral palsied child means specialized services from birth to death, rather than following the ancient concept of lifetime medical and custodial services. Services are being developed to fill all of the needs of cerebral palsied individuals with all levels of handicaps and at all age levels.

The Department of Mental Health is one of the catalysts in establishing new services for the cerebral palsied individuals in Tennessee. Types of services receiving support by the Department of Mental Health are:

Staff development	Physical therapy
Residential services	Planning
Transportation	Educational services
Occupational therapy	Training services

The Developmental Disabilities concept of "filling gaps in services," as recognized by the Department, is making it possible to serve many new individuals through cooperative efforts. One such effort is the construction of a facility to house five programs in Jackson, Tennessee. The five programs will share central food services, transportation, medical, therapy and administration services. Plans project a great reduction in

the cost of these services by using the cooperative approach to programming.

At most local levels, direct services are provided to children and adults with cerebral palsy and to their families by affiliates of United Cerebral Palsy. These include medical diagnosis, evaluation and treatment, special education, vocational training, social and recreation programs, parent counseling, advocacy and community education. Affiliates conduct their own fund-raising programs, retaining 75 percent of the funds raised for their local services. Local public involvement and the concern of the public for filling the comprehensive needs of the individuals are making program development successful.

Middle Tennessee United Cerebral Palsy and the National United Cerebral Palsy Association, Inc. are continuously united in efforts to develop the types of services that bring about the new glow now being observed in the faces of cerebral palsied individuals. Hope for our cerebral

palsied citizens is the result of a new public awareness, new public involvement, and new cooperative efforts.

This is a beginning for which we are truly grateful. Real hope for the future and the attainment of goals envisioned is dependent upon our citizens who have each year become more aware, put forth greater effort, and offered more support than in previous years.

Our service costs will be greater as we increase service, but we have faith that our needs will be met. The U.S. Department of Health, Education and Welfare (HEW) estimates the annual cost of care for cerebral palsy at \$1.6 billion in the United States. Can anyone estimate the price of the new hope now showing in the faces of cerebral palsied citizens and their families?

National Factual Information—Cerebral Palsy—Facts and Figures, United Cerebral Palsy Association, Inc., 66 E. 34th Street, New York, New York.

* * * * *

ANSWERS TO THE COOPER REVIEW

(from page 593)

1. NEUROLOGY

a) #4. RISA cisternogram will be least important test in this case where pathology is suspected in the cerebellopontine angle and because RISA cisternogram is only helpful in diagnosing the normal pressure hydrocephalus.

All other tests listed above help in determining this diagnosis, e.g., increased protein in spinal fluid, destruction in the area of internal auditory meatus on x-rays and abnormalities on C.P. single myelogram.

b) #4. Tensilon is a short acting cholinesterase inhibitor. It is used to test for improvement in muscle strength in a patient suspected of having Myasthenia Gravis. Because of its short duration, it is not used in treatment of the disorder.

2. RHEUMATOLOGY

#5. The diagnosis of pseudo-gout as is made in this patient because of the heavily laden calcium pyrophosphate crystals seen in the joint fluid should make one think of the systemic diseases that are frequently associated with this form of arthritis. Diabetes mellitus is present in 50% of patients with pseudo-gout, so a blood sugar and serum acetone are certainly indicated. Ten percent of patients with pseudo-gout have associated hyperparathyroidism so

that a serum calcium should be drawn to rule out the possibility that his coma is secondary to hypercalcemia. Certainly in a patient with coma and poor skin turgor, intravenous fluids would also be accepted therapy. Although, it would be tempting to start antibiotics in a comatose patient with a fever and "hot knee" these would not be indicated since the patient's fever and hot knee are secondary to crystal induced synovitis and can be corrected by the use of appropriate anti-inflammatory agents rather than antibiotics.

3. OB-GYN

TRUE. Although earlier comparison of carcinoma of the cervix to endometrial carcinoma was 8:1, present statistics have dropped this ratio to a reported 4:1 and in some clinics 1:1 (Novak). Although a definitive explanation for this phenomenon is unavailable, possible causes are: (1) better mass screening with pap smears thus reducing incidence of cervical carcinoma, (2) increase in female life expectancy thus increasing the number at risk for endometrial carcinoma, and (3) the feeling that endometrial carcinoma is more frequent in upper income classes and that the incidence is increasing as our society becomes more affluent.

4. PATHOLOGY

#1

References: Clark, WH: *Cancer Res*, 29:705, 1969. Mehm, MC, Clark, WH, and From, L: *New Eng J Med*, 284, 1078, 1971.

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Medicine In Trouble

Medical societies should take a long look at their aims and purposes and bring them up to date before it is too late. For many decades, we have dedicated ourselves to give our patients the best possible medical care. The apathy among so many physicians is inherent upon this contention—"Let me alone—all I want to do is practice medicine." But now we are being told by the three demigods of our Federal government, Kennedy, Nader, and Meany, that we fall short of our goals and that they know how to do it better. On account of these verbal attacks, organized medicine goes on the defensive again—a method of fighting that never has won a battle!

In order to defend ourselves, we elect more committees, join hands with well-meaning local organizations, send a few of our leaders to Springfield and Washington, increase the budget (supposedly to add to the war chest), organize a few symposia, call a special county medical society meeting that only a dozen attend, and pass out awards for keeping scientific accomplishments in the press.

In my opinion, there are better ways to spend our money. Our budgets are at a record high and too many of our members see no improvement and complain that the threat of socialized medicine looms larger than ever.

Our tactics need to be overhauled. We must go on the offensive and fight fire with fire. It might be to our advantage to use the same tactics that have worked so well in labor unions and in politics to convince voters to send certain people to the Senate and the House of Representatives. Pomposity, aloofness, and the preaching of idealistic concepts is not going to work, despite the fact that we are in daily contact with voters. For example, a political analyst asked Senator Kennedy why he wanted to change the practice of medicine. Over national television, the senator said, "When an American mother calls a doctor, I want her to get one." That was all he said. Certainly not an earth-shaking comment, yet, right or wrong, the implications were obvious.

When our medical society argued on TV against committee action before admitting indigent patients into the hospital, ethics was stressed. It is too bad that no one had the

presence of mind to say: "When your mother has a heart attack, must we wait for committee approval before she is admitted? By then, the dear lady would be dead."

Why don't we tell the American people how many PSRO committees will be needed, how often they must meet, and the terrific expense. And all to save money because, supposedly, doctors don't know when a person is sick enough to be admitted and how long the patient should remain. Forget ethics—get down to the patient's level. Physicians who take advantage of the usual rules should be "kicked out."

We should instigate a national campaign about the flaws in government medicine as it is now practiced in Veterans, public health, municipal, county, and other hospitals. Patients will wait for hours and will be treated like sheep. Every honest physician will admit he has seen examples of this. And, it will be the labor leader or politician who will now get preferential treatment. Every physician could see 15% more patients were it not for the silly paperwork.

And, why not earmark some of our dues for bringing to the attention of our people the faults of other professionals? Watergate is little more than the pitting of one group of superlawyers against another. Many physicians continue to ask why the medical profession has been singled out to be checked by PSRO. Should not the government also supervise lawyers and legislators? After all, the complexity of changing laws are as vital to their profession as medical advances are to the physician.

As Dr. J. G. Bohorfoush of Milledgeville, Ga., puts it: "... The collusion between judges and lawyers in probate is often scandalous. Stealing the livelihood from a widow is unethical and immoral, even if legal. The poor client with an uninterested lawyer being railroaded for a crime he did not commit is pathetic." Not surprisingly, we hear very little from the American Bar Association that lawyers should be re-examined periodically. In other words, what is good for the goose is good for the gander. To attack this issue intelligently, we have to stop waving the white flag before starting the battle.

T. R. VAN DELLEN, M.D., *Editor*

—Reprinted from the *Illinois Medical Journal*
April, 1974

The 4th National Congress On Medical Ethics

WALTER H. JUDD, M.D.

As we return to our homes and regular duties,

I trust that we leave with a deepened resolve to do all within our power to support and strengthen the concept of professionalism in medicine. Our speakers have not told us *what* we must think but *that* we must think—think more deeply about the meaning of the distinctions between etiquette, ethics, medical ethics, bioethics, and to observe and respect the requirements of each.

One of our first speakers said medicine today is in crisis. I agree that it is at least at a crossroads. But so is our civilization and the two are not unrelated.

There is criticism that we physicians don't live up to the ethical principles we proclaim and profess as well as in the past; that we don't practice what we preach. This criticism is not new. It has often been heard but it is more organized and strident now.

More basic is the criticism in some quarters of the ethical principles themselves. It is said that they aren't essential for our times or relevant to today's conditions and that the standards aren't necessarily good, even if we do live up to them.

Of course, this is true also of other professions. I know a young man who went into law as the profession through which he believed he could best serve his fellowman. After two years of close association with one of the top trial lawyers in a large and prestigious law firm, he was given a case to handle on his own. When asked how it came out, his reply was, "Oh, I got him acquitted—and he's just as guilty as hell." His professional obligations to his client required that he take advantage of every technicality the law provided, doubtless under the principle that it is better to have ten guilty persons acquitted than one innocent person convicted. Yet in following those accepted standards of his profession, he knew he had defeated justice. What is a man in any profession to do when something is made legal that has previously been considered unethical?

Again and again it has been said in this Congress that our standards in medical ethics depend largely upon the general moral standards and values in the society of which we are a part, and that the kind of moral standards and values that a society develops depends in the last analysis on what the dominant elements in the society believe

Dr. Judd is a past Chairman of the AMA Judicial Council.

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regarding the nature of man. What and who is man anyway? It seems clear that no matter how situations change and no matter what new knowledge and techniques are developed for treating man's illnesses, man himself is just about the same today in his appetites and aspirations, his strengths and his weaknesses, as man has always been.

Dr. Charles Malik, the eminent Lebanese philosopher and statesman, said that at the Conference on Human Rights held in Paris shortly after World War II to draw up a Universal Declaration of Human Rights the delegates spent the first several months trying, and in vain, to get agreement on what a human being is. After all, how do you determine and declare the rights to which every human being by nature is entitled until you decide what a human being's nature is? One main group held that man is that animal with the largest brain relative to the rest of his body, the smartest of the animals. Period. He does what he does because he's been taught to do it—completely Pavlovian. The other said that man has something in him different in character, quality, kind from anything any animal has—specifically, the capacity to make moral judgments, and to make independent decisions based on those judgments. He has the capacity to say yes or no even in opposition to the way he's been "conditioned."

The totalitarians say that we hold this view only because we have been taught it by rabbis, priests, ministers, writers of Declaration of Independence, but that it isn't so. And when nobody is permitted to plant in our minds that erroneous notion regarding the nature of man, then we won't believe it. It is their "mission" to gain control of the world—not to subjugate man but to "liberate" him from those "errors." When they control totally what is permitted to go into the human mind, they will produce a new and different human being—Communist man. He won't be acquisitive and combative as is capitalist man; he won't think in terms of the individual but in terms of the "masses;" he won't be greedy and self-seeking; there won't be clashes and, thus, there will be peace.

One day when undergoing this Communist "brainwashing" in China, I made bold to say, "I know you believe this and it sounds convincing, but I just don't believe it will work because it's against human nature." The man's eyes blazed as he exploded; "You capitalists always talk about human nature. There is no such thing as

human nature. Human nature is what you make it. Capitalism makes it selfish, that's why you have wars. Communism will make it selfless and the world will at last have peace."

Well this is still the basic question for us today: Is there such a thing as human nature or isn't there? If there is, what is it?

If there is a *moral* order in the universe—as all agree there is an astronomical order, a physical order, a biological order—how do we discover its laws or principles and apply them, or get ourselves and others to live in accordance with them? We have probed, or at least touched, such questions in this Congress and we must continue to search for the right answers to them.

Let me move on to some of the specific problems we confront in applying the principles in our practice.

Traditionally, medicine has been divided into its art and its science almost as if they were separate or separable. In days when scientific knowledge was not so highly developed, the art of medicine reached a high level of refinement and was practiced with great skill and corresponding benefit to the patient as a person. Now, in our preoccupation with the almost unbelievable expansion of scientific knowledge and technology, it is understandable that the concern of the profession as a whole for the "art" has slipped somewhat. We tend to study the patient less and less as a human being and more and more as a scientific problem—a case.

Sometimes we find ourselves treating a disease or a deformity or a dysfunction rather than the person who has it. Like the specialized garage mechanic who fixes a carburetor or the transmission or the tires, the specialist in medicine tends to treat the heart or liver, the brain or bones, more than he treats the whole human being.

Often in recent years I am with people who, knowing of my public life, forget that I am first of all a physician. They speak of our profession more freely, and the main complaint I hear is, "My doctor doesn't have time to talk to *me*."

My colleagues, our patients and the public have a right to expect that the members of this profession to which such extraordinary privileges have been given, including that of self-regulation on ethical matters, will fulfill to the highest degree their responsibilities to the whole person. Never can a true disciple of Aesculapius, no matter how busy with the body's organs, treat a patient as a soulless entity. We must get the science and art of medicine back into better balance because the

art of medicine is the lifeblood of the profession. We must practice the art just as skillfully as we do the science.

Recently the press has reported incidents of medical experimentation which, if taken as true, shock the consciences of reasonable men. In one news story, a medical investigator was said to have admitted that no mother or child in the study he was conducting knew at the time that any sort of experimentation was underway. He was quoted as saying that the current requirement that any study involving experimentation on human beings must be approved by a committee that makes the investigator first get informed consent is a step backwards. He reportedly said that if he hadn't done his study "a lot of kids" who are now receiving beneficial treatment for the particular disease wouldn't be getting that treatment. But did he have to do the experimentation the way he reportedly did?

Even the best of ends does not justify unethical means. This is never more important than in medical experimentation on human beings. We must constantly remind ourselves and urge our fellow-physicians to be alert to all of medicine's obligations; to sensitize our own consciences and those of our fellow-physicians so that medical investigation cannot be accused of failing to respect the rights of fellow human beings.

In another field the advance of science, the high costs of more complicated procedures, and the conditions of society around us today have placed an unprofessional, at times unwholesome, emphasis on the business or economic side of medical practice.

Let me emphasize and reemphasize that the laborer is worthy of his hire. The physician has not only a right, he has an ethical obligation to earn an adequate income for himself and his family. He should make appropriate charges for the medical services actually rendered by him or under his supervision to his patients. But if, *with his office full of patients*, he charges for an appointment not cancelled 24 hours in advance, he is bound to be regarded as mercenary—one who puts first not concern for the patient and the standards of the profession but dollars for the doctor.

Again, if a physician refuses, because a bill is outstanding, to forward medical information from his records to the physician who is currently treating a former patient, plainly he is putting economic interests ahead of professional

interests and bringing both him and his profession into disrepute.

In an opinion of the Judicial Council a few years ago concerning physician-ownership of financial interest in hospitals, it was said, "When in the course of physician-patient relationship a conflict develops between the physician's financial investments and the physician's allegiance to his patient, the conflict must be resolved to the patient's benefit." Does not this guideline apply equally when the conflict is between the business side of a medical practice and the physician's primary obligation to his patient?

It is sometimes said that while the practice of medicine is a profession, the management of a profession is a business. But the management of the *medical* profession is not an ordinary business because its "product" is so completely unique; it involves the very lives as well as the health of human beings.

Again, it has been argued that because credit cards have provisions for interest charges on unpaid balances, similar interest charges by physicians are quite proper. That does not follow. Credit cards are strictly a business operation; the practice of medicine is *not*.

With respect to adding interest charges on unpaid accounts, one medical group wrote to the Judicial Council, "In legal counsel's opinion, we are within our rights and legal. And our accountant feels it is good, sound, business policy." But the fact that a procedure may be both quite legal and good sound business policy does not make it an ethical procedure for a physician to use in the practice of the profession of medicine.

So, a genuinely basic and practical question which our profession, the American Medical Association as our national professional organization, and its Judicial Council must face today is this: Is it still "the prime objective of the medical profession to render service to humanity"? "Is it still true that for us financial reward or gain must be a subordinate consideration?"

If this ethical principle is not valid today, then the principle must be changed by the House of Delegates and the profession be brought down to the level of a business which makes no similar claim to being a high and noble *profession*.

If, on the other hand, this still is a valid ethical principle—*always* valid for this profession because of the preciousness of every human life and the very nature of our calling—then let us reaffirm *the* principle and rededicate ourselves to the hard but splendid task of living up to it.

Finally, let me suggest that the Congress will be meaningful to the extent that we have gained from it a sharpening of our ideas and a renewal of our idealisms, and to the extent that we take these back to our communities and put them into practice.

Is not this the best, the true way for a physician to win for himself both greater success in his practice and maximum satisfaction in his life and his ministry—the ministry of healing?

Like every useful meeting, the end of the conference is the beginning of our work.

Dr. Judd, 3083 Ordway Street N.W., Washington, D. C. 20008.

Instructions for Witnesses*

You, as a witness in a lawsuit, have a very important job to do, since, in order for a jury to make a correct and wise decision, it must have all of the evidence put before it truthfully.

You already know that you take an oath in court to tell nothing but the truth. But there are two ways to tell the truth: one is in a halting, stumbling, hesitant manner, which makes the jury doubt that you are telling all of the facts in a truthful way; the other is confident and straightforward, which makes the jury have more faith in what you are saying. You help yourself, the party you are testifying for, the judge and jury by giving your testimony in this last way.

To assist you, here is a list of time-proven hints and aids which, if followed, will make your testimony much more effective.

Suggestions To A Witness

1. As a witness to an accident, try to visit the scene before the trial. Stand on all corners and become familiar with the place. Close your eyes and try to picture the scene, the objects there, and the distances.

2. Before you testify, visit a court and listen to other witnesses. This will make you familiar with a court, and help you to understand what

cont. on page 633

*Editor's Note: The "Instruction for Witnesses" are of assistance for physicians testifying in court. The original text has been reprinted in full, although some of the suggestions obviously do not apply to physicians testifying as experts.

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will happen when you give your testimony.

3. Wear clean clothes in court. Dress conservatively.

4. Do not chew gum while testifying or taking the oath.

5. Stand upright when taking oath. Pay attention and say "I do" clearly.

6. Don't memorize what you are going to say.

7. Be serious at all times. Avoid laughing and talking about the case in the halls, restrooms, or any place in the courthouse.

8. Talk to the members of the jury. Look at them most of the time and speak to them frankly and openly as you would to any friend or neighbor. Do not cover your mouth with your hand. Speak clearly and loudly enough so that the farthest juror can hear you easily.

9. Listen carefully to the questions asked of you. No matter how nice the attorney may seem on the cross-examination, he may be trying to hurt you as a witness. Understand the question. Have it repeated if necessary; then give a thoughtful, considered answer. Do not offer a snap answer without thinking. You can't be rushed into answering, although, of course, it would look bad to take so much time on each question that the jury would think you were making up an answer.

10. Explain your answers if necessary. This is better than a simple "Yes" or "No." Give an answer in your own words. If a question can't be truthfully answered with a "Yes" or "No," you have a right to explain the answer.

11. Answer directly and simply only the question asked, and then stop. Do not volunteer information not actually asked.

12. If your answer was wrong, correct it immediately.

13. If your answer was not clear, clarify it immediately.

14. The court and jury only want facts; not hearsay, or your conclusions or opinions. You usually can't testify about what someone else told you.

15. Don't say, "That's all of the conversation," or "Nothing else happened." Say instead "That's all I recall," or "That's all I remember happening." It may be that after more thought or another question you will remember something important.

16. Be polite always, even to the other attorney.

17. Don't be a smart aleck or a cocky witness! This will lose you the respect of the judge and jury.

18. You are sworn to tell the truth. Tell it. Every material truth should be readily admitted, even if not to the advantage of the party for whom you testify. Do not stop to figure out whether your answer will help or hurt your side. Just answer the questions to the best of your memory.

19. Don't try to think back to what was said in a statement you made. When a question is asked, visualize what you actually saw and answer from that. The jury thinks a witness is lying if his story seems too "pat" or memorized, or if he answers several questions in the same language.

20. Do not exaggerate.

21. Stop instantly when the judge interrupts you, or when the other attorney objects to what you say. Do not try to sneak your answer in.

22. Give positive definite answers when at all possible. Avoid saying "I think," "I believe," "In my opinion." If you do not know, say so; don't make up an answer. You can be positive about the important things that you naturally would remember. If asked about little details that a person naturally would not remember, it is best to just say that you don't remember. But don't let the cross-examiner get you in the trap of answering question after question with "I don't know."

23. Don't act nervous. Avoid mannerisms which will make the jury think you are scared, or not telling the truth or all you know.

24. Above all—this is most important—do not lose your temper. Testifying for a length of time is tiring. It causes fatigue. You will recognize fatigue by certain symptoms: (a) tiredness, (b) crossness, (c) nervousness, (d) anger, (e) careless answers, and (f) the willingness to say anything or answer any questions in order to leave the witness stand. When you feel these symptoms, recognize them and strive to overcome fatigue. Remember that some attorneys on cross-examination will try to wear you out until you will lose your temper and say things that are incorrect or that will hurt you or your testimony. Do not let this happen.

25. If you do not want to answer a question, do not ask the judge whether you must answer it. If it is an improper question, your attorney will take it up with the judge for you. Don't ask the judge for advice.

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26. Don't look at your attorney or at the judge for help in answering a question. You are on your own. If the question is improper your attorney will object. If the judge then says to answer it, do so.

27. Do not "hedge" or argue with the other attorney.

28. Do not nod your head for a "Yes" or "No" answer. Speak out clearly. The court reporter must hear.

29. If the question is about distances or time and your answer is only an estimate, be sure that you say it is only an estimate. Be sure to think about speeds, distances, and intervals of time before testifying, and discuss the matter with your attorney so that your memory is reasonable.

30. When you leave the witness stand after testifying, wear a confident expression, not a downcast one.

31. There are several questions that are known as "trick questions." If you answer them the way the other attorney hopes you will, he can make your answer sound bad to the jury. Here are two of them:

(a) "Have you talked to anybody about this case?" If you say "No," the jury knows that is not right because good lawyers always talk to a witness before they testify. If you say "Yes," the lawyer may try to infer that you

were told what to say. The best thing to do is to say very frankly that you talked to whom-ever you have—lawyer, party to suit, police, etc.—and that you were just asked what the facts were. All you do is tell the truth.

(b) "Are you getting paid to testify in this case?" The lawyer asking this hopes your answer will be "Yes," thereby inferring that you are being paid to say what your side wants. Your answer should be something like: "No," I am not getting paid to testify. I am only getting compensation for my time off from work, and the expense (if any) it is costing me."

32. Except in a few situations, an insurance company cannot be joined as a defendant, and if anything is said that will let the jury know that an insurance company is actually defending the case, the judge will declare a mistrial. The jury will be discharged, and the case started all over. Therefore, be careful not to mention insurance.

33. Go back, now, and reread these suggestions so you will have them firmly in your mind. We hope they won't confuse you. We hope they will help. They aren't to be memorized. Ask us about anything you don't understand. You will find there is really no reason why you should be nervous while testifying. If you relax and remember that you are just talking to some neighbors on the jury, you will get along fine.

* * *

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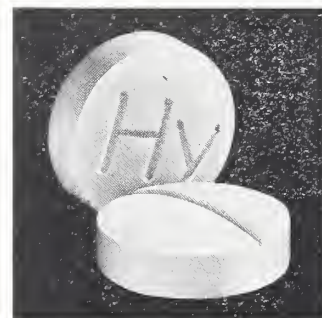
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TIPS FOR THE IDENTIFICATION OF DRUG ABUSERS

The following chart was adapted by the Suffolk County Medical Society (New York) from one prepared by the Suffolk County District Attorney's Office

Drugs Used	Physical Symptoms	Look For	Dangers
Glue Sniffing	Violence, Drunk Appearance, Dreamy or blank expression	Tubes of glue, Glue smears, Large Paper Bags, or Handkerchiefs	Lung / Brain / Liver Damage, Death through suffocation or choking, Anemia
Heroin, Morphine, Codeine	Stupor, Drowsiness, Needle marks on body, Watery eyes, Loss of appetite, Blood stain on shirt sleeve, Running nose	Needle or hypodermic syringe, Cotton, Tour-niquet-string, Rope, Belt, Burnt bottle Caps or Spoons, Glassine envelopes	Death from overdose, Addiction, Liver and other infections due to unsterile needles
Cough Medicine containing Codeine and Opium	Drunk appearance, Lack of coordination, Confusion, Excessive Itching	Empty bottle of cough medicine	Addiction
Marijuana ("Pot," "Grass")	Sleepiness, Wandering mind, Enlarged pupils, Lack of co-ordination, Craving for sweets, Increased appetite	Strong odor of burnt leaves, Small seeds in pocket lining, Cigarette paper, Discolored fingers	Inducement to take stronger narcotics. Psychological dependence. Possible physical damage?
Hallucinogens: (LSD, DMT)	Severe Hallucinations, Feelings of detachment, Incoherent speech, Cold hands & feet, Vomiting, Laughing & crying	Cube sugar with discoloration in center, Strong body odor, Small tube of liquid	Suicidal tendencies, Unpredictable behavior, Chronic exposure causes brain damage
Stimulants: Amphetamines ("Pep Pills," "Ups")	Aggressive behavior, Giggling, Silliness, Rapid Speech, Confused thinking, No appetite, Extreme fatigue, Dry Mouth, Shakiness, Insomnia	Pills or capsules of varying colors, Chain smoking	Death from overdose, Hallucinations, Psychosis
Sedatives Barbiturates ("Goof Balls," "Downs")	Drowsiness, Stupor, Dullness, Slurred speech, Drunk appearance, Vomiting	Pills or capsules of varying colors	Death or unconsciousness from overdose, Addiction, Convulsions in withdrawal

Control of Habit-Forming Drugs

Parallel federal and state laws now control the flow of medications which have abuse potential to a greater degree than ever before. While the laws are parallel, they are not identical; thus, confusion is created for physicians and pharmacists. In an effort to simplify compliance, the charts, were prepared by the Illinois Pharmaceutical Association and the Chicago Retail Druggists' Association, and have been adapted to conform to Tennessee law. Please note that the storage and order form requirements apply to physicians as well as pharmacists. Additional label and record keeping requirements are imposed on physicians who dispense take-home supplies of controlled substances.

Where prescriptions are refillable, the prescriber may designate up to five refills, and these may be honored by the pharmacists during a period of six months. No quantity restrictions are imposed by the law, but pharmacists will generally question controlled substance prescriptions for more than one hundred dosage units. Physicians may obtain controlled substances for office use from pharmacists by using the federal order form. At the present time, Valium, Librium and Darvon are NOT controlled substances.

The Illinois Medical Journal expresses its appreciation to Roger W. Cain, R.Ph., Executive Director, Illinois Pharmaceutical Association for his assistance in developing these materials. The list was adapted to Tennessee law by Henry T. Birdsong, R.Ph.

CONTROLLED SUBSTANCES REFERENCE CHART

	Federal Schedule Number	Requires Written Rx Signed by MD	Refill Status	Federal Order Form Required	Security Locked Cabinet
Old Class "A" Narcotics (Morphine, Demerol, Dilaudid, etc.)	II	YES	NO	YES	YES
Methamphetamines and all combinations. (Desoxyn, Phelantin, etc.)	II	YES	NO	YES	YES
Amphetamines and all combinations. (Dexedrine, Eskatrol, Bamadex, etc.)	II	YES	NO	YES	YES
Methaqualone. (Quaalude, Sopor, Parest, etc.)	II	YES	NO	YES	YES
Methylphenidate (Ritalin) Phenmetrazine (Preludin)	II	YES	NO	YES	YES
Injectable & oral forms of amobarbital, pentobarbital, & secobarbital, all combinations with each other and with other controlled drugs. (Tuinal, etc.)	II	YES	NO	YES	YES
Old Class "B" Narcotics (Empirin Comp/Codeine, Hycomine, Phenaphen with Codeine, etc.)	III	phone orders acceptable	5 times or 6 months as indicated by MD	NO	NO
Schedule III drugs (Sanorex, Voranil, Plegine, Butabarbital, Paregoric, Gemonil, Doriden, etc. Also Nembutal and Seconal Suppositories)	III	phone orders acceptable	5 times or 6 months as indicated by prescriber	NO	NO
Schedule IV drugs (Tenuate, Tepanil, Ionamin, Phenobarbital, Meprobamate, etc.)	IV	phone orders acceptable	5 times or 6 months as indicated by prescriber	NO	NO

Reprinted, with adaptations, from the *Illinois Medical Journal*, May, 1974

CONTROLLED SUBSTANCES REQUIREMENTS

Drug	Written Rx Required	Refill ?	Federal Order Form Required	Locked Secu- rity Required
Amobarbital Oral & Inj.	YES	NO	YES	YES
Amphetamine	YES	NO	YES	YES
Amytal	YES	NO	YES	YES
Amytal & Aspirin	NO	YES	NO	NO
APC w/ Demerol	YES	NO	YES	YES
Bamadex Sequels	YES	NO	YES	YES
Benzedrine	YES	NO	YES	YES
Biphetamine	YES	NO	YES	YES
Butabarbital	NO	YES	NO	NO
Butisol	NO	YES	NO	NO
Codeine Tablets	YES	NO	YES	YES
Demerol	YES	NO	YES	YES
Desoxyn	YES	NO	YES	YES
Dexamyl	YES	NO	YES	YES
Dexasequels	YES	NO	YES	YES
Dexedrine	YES	NO	YES	YES
Dextro-Amphetamine	YES	NO	YES	YES
Didrex	NO	YES	NO	NO
Dilaudid	YES	NO	YES	YES
Dolophine	YES	NO	YES	YES
Emesert Suppository	NO	YES	NO	NO
Empirin w/Codeine	NO	YES	NO	NO
Ephedrine & Amytal	NO	YES	NO	NO
Eprogen	NO	YES	NO	NO
Eskatrol	YES	NO	YES	YES
Hycodan Tablets	NO	YES	NO	NO
Hycomine	NO	YES	NO	NO
Ionamin	NO	YES	NO	NO
Leritine	YES	NO	YES	YES
Mebaral	NO	YES	NO	NO
Mediatric	NO	YES	NO	NO
Mepergan	YES	NO	YES	YES
Meperidine	YES	NO	YES	YES
Methamphetamine	YES	NO	YES	YES
Methaqualone	YES	NO	YES	YES
Monothemine & Amytal	NO	YES	NO	NO
Morphine	YES	NO	YES	YES

Drug	Written Rx Required	Refill ?	Federal Order Form Required	Locked Secu- rity Required
Nebralin	NO	YES	NO	NO
Nembu-Donna ½	NO	YES	NO	NO
Nembutal Oral & Inj.	YES	NO	YES	YES
Nembutal Suppository	NO	YES	NO	NO
Obetrol	YES	NO	YES	YES
Paregoric	NO	YES	NO	NO
Parest	YES	NO	YES	YES
Pentobarbital w/Aspirin	NO	YES	NO	NO
Pentobarbital Oral & Inj.	YES	NO	YES	YES
Pento-Del	YES	NO	YES	YES
Percodan	YES	NO	YES	YES
Phelantin	NO	YES	NO	NO
Phenaphen w/Codeine	NO	YES	NO	NO
Phenobarbital	NO	YES	NO	NO
Plegine	NO	YES	NO	NO
Preludin	YES	NO	YES	YES
Pre-Sate	YES	YES	NO	NO
Quaalude	YES	NO	YES	YES
Qui-A-Zone	YES	NO	YES	YES
Ritalin	YES	NO	YES	YES
Sanorex	NO	YES	NO	NO
Secobarbital Oral & Inj.	YES	NO	YES	YES
Seco-8	YES	NO	YES	YES
Seconal Oral & Inj.	YES	NO	YES	YES
Seconal Suppository	NO	YES	NO	NO
Soma Cmpd. w/Codeine	NO	YES	NO	NO
Somnafac	YES	NO	YES	YES
Sopor	YES	NO	YES	YES
Tenuate	NO	YES	NO	NO
Tepanil	NO	YES	NO	NO
Tribarbs	YES	NO	YES	YES
Tuinal	YES	NO	YES	YES
Tussend	NO	YES	NO	NO
Tussionex	NO	YES	NO	NO
Tylenol w/Codeine	NO	YES	NO	NO
Wilpo	NO	YES	NO	NO

Female Sterilization Utilizing the Laparoscope

FRANK H. BOEHM, M.D. AND JAMES SHAW, M.D.

Female sterilization has become an accepted and popular method as a permanent contraceptive method by both physicians and patients. The volume of women now requesting sterilization makes it necessary to perform a procedure which will be safe and effective, and will involve a minimum of hospitalization and post-operative care. These criteria can be fulfilled by use of the operative laparoscope and, in the past few years, this procedure has gained a great deal of popularity. Recently a study reported on 3,600 laparoscopic sterilization procedures without a fatality and with a minimum of complications and a subsequent pregnancy rate of only 0.3%.¹ Other studies have confirmed the fact that this procedure is safe and effective.²⁻⁴ Despite this, however, laparoscopic sterilization is not a procedure that one can learn to perform with a minimum of exposure to the technique. Many physicians are attending workshops on laparoscopy or are performing the procedure without much background information. Therefore, the authors felt it worthwhile to present the first 100 cases performed at a teaching institution, to review the complications and problems encountered, and to report on the laparoscopic sterilization procedure in some detail.

METHODS AND MATERIAL

This study reviews the first one hundred patients treated at the Vanderbilt University Hospital Laparoscopic Sterilization Clinic. The patient population had a mean age of 31 years (range 19-48 years) while the mean parity was 2.7 births (range 0-10). Patients selected were felt to be free of gynecological pathology which would necessitate a more extensive procedure. Patients were free of serious medical illness except for three patients with significant hypertension. Previous abdominal surgical procedures were not considered to be contraindications to this procedure inasmuch as 14 patients undergoing laparoscopy had lower abdominal scars, including 3 paramedian and two midline incisions. The

technique and incision site was not altered by the presence of these scars and no complications resulted in any of these cases, although the possibility of injury to the bowel adherent to the scar should be considered.⁵

HOSPITALIZATION

The hospital admissions office, department of obstetrics and gynecology, department of anesthesia, and the operating room personnel were consulted and coordinated in their efforts with a goal to reduce patient costs to a minimum by shortening hospital stay to ten hours when possible. Because of the use of general anesthesia with endotracheal intubation, ten hours was felt to be the minimum hospital stay, and came as close as possible to this being considered an outpatient procedure,⁶ still satisfying the need for patient safety.

Approximately six patients underwent laparoscopic sterilization procedures each Friday morning. The patients were seen in the clinic one day prior to surgery, at which time a medical history and physical examination was performed. The procedure and its risks were explained to the patients and proper consent forms signed. The patients were then seen by an anesthesiologist who performed a preanesthetic evaluation and ordered preoperative medications, usually meperidine and atropine. Laboratory work, which consisted of an SMA-12, packed cell volume, type and cross match for two units of blood and a urinalysis, was obtained from each patient. The subjects were then sent home with a Fleet's enema to be self administered at 9:00 P.M., with instructions to take nothing by mouth after midnight. The patients returned to the hospital the next morning on a staggered schedule, each one approximately two hours before her scheduled surgery. At this time they were admitted, vital signs were obtained, and laboratory results assessed. The abdomen was scrubbed for five minutes with soap, with particular attention to the umbilicus, and covered with a sterile towel, and an intravenous infusion was started with an 18 gauge angiocath. Preoperative medication was given approximately

From the Department of Obstetrics and Gynecology, Vanderbilt University, Nashville, Tenn. 37232.

one hour prior to surgery, and the patient was taken to the operating suite. After the operative procedure the patients were taken to the recovery room where vital signs were taken routinely; the intravenous fluids were continued until the patient was awake and stable. The patient was then sent to her room where she was given a regular diet and encouraged to cough, void, and ambulate. There were routine orders for pain, as well as for nausea and vomiting, but an attempt was made not to heavily sedate the patient. The patient was seen for a postoperative check by the anesthesiologist and then by the house officer; she was given a prescription for pain medication and, except in cases which will be discussed later, was discharged.

Procedure

Chest electrodes are applied to each patient for lead two electrocardiogram monitoring during anesthesia. Sodium pentothol and succinyl choline is administered intravenously and endotracheal intubation is accomplished. Anesthesia is maintained with nitrous oxide, oxygen and, occasionally, meperidine. Muscle relaxation is obtained with curare or a succinyl choline intravenous drip and the patient is placed in a lithotomy position. The abdomen of the patient is then prepped. The vagina is also cleansed, and the cervix is visualized and grasped with a tenaculum on the anterior lip. The uterus is sounded with a uterine sound and the cervix is dilated until a small sharp curette can be introduced. The endometrial cavity is curetted, following which a dull curette is introduced into the cavity and taped to the tenaculum on the anterior lip of the cervix. These together are used to maneuver the uterus during the subsequent procedures. The patient's urinary bladder is then drained and the catheter removed. The abdomen is draped with towels, exposing the umbilicus and subumbilical area. The legs, which are still spread and elevated, are covered with sheets and the table is adjusted to a 20 degree Trendelenburg position. A laparotomy sheet is placed over the patient, and the skin is grasped approximately 1 and 1/2 inches below the umbilicus in the midline with a towel clip and a 1 centimeter incision is made inferiorly in the fold of the umbilicus. At this point atropine is given intravenously to prevent cardiac arrhythmias.⁷

While elevating the towel clip, a Verres needle is introduced through the subcutaneous tissue into the peritoneal cavity for the introduction of car-

bon dioxide. This needle has a protective dull spring lock that protrudes once the needle is in the peritoneal cavity. The needle is inserted by holding it at a 50 to 60 degree angle aiming just below the sacral promontory (Fig. 1.). This

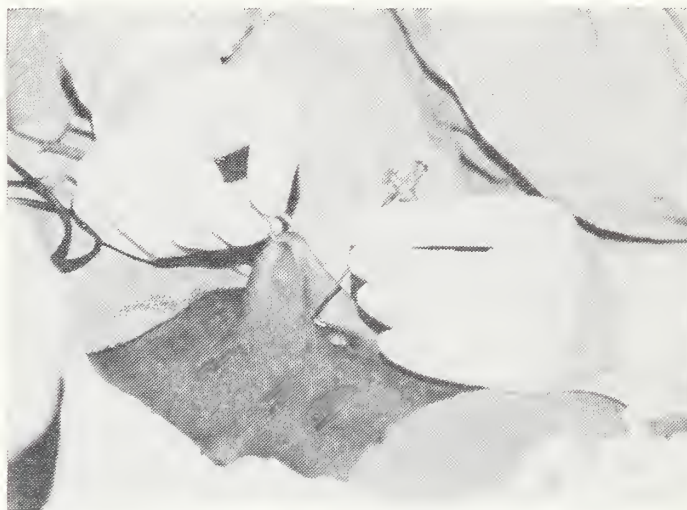


FIG. 1 The Verres needle being introduced.

position is important in preventing large blood vessel trauma. Sterile saline is then introduced via a 10 cc syringe and withdrawn to determine the proper positioning of the needle within the celomic cavity. A pneumoperitoneum is obtained by introducing carbon dioxide through the Verres needle, using a CO₂ insufflator which introduces CO₂ at a rate of 1 liter per minute under a pressure of 20-30 millimeters of mercury. The total volume of CO₂ introduced ranges between 2 and 3 liters, though the amount of air introduced is based on the physical appearance of the distended abdomen. The Verres needle is removed and the laparoscope trocar and cannular inserted through the same subumbilical incision (Fig. 2).

The trocar is removed and entrance into the gaseous space is confirmed by the sound of a



FIG. 2 The laparoscopic trocar prior to insertion.

sudden rush of air when the trumpet valve is depressed. The laparoscope with the fibre optic attachment is then introduced under direct visualization through the cannula and inspection of the abdominal cavity is performed at this point to rule out any trauma secondary to the procedure (Fig. 3). The CO₂ gas line is attached to the

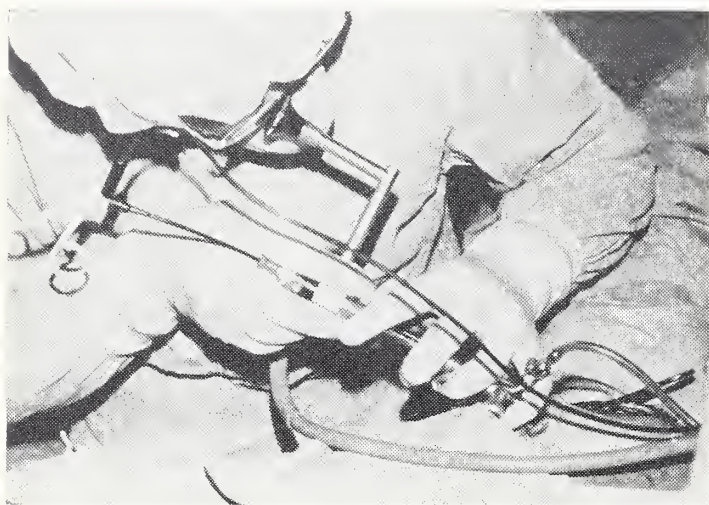


FIG. 3 The operative laparoscope in place.

trochar sleeve for maintenance of the pneumoperitoneum. The uterus is then visualized with the help of the curette located in the uterine cavity. Maneuvering is done by the operator by grasping the tenaculum through the drape. In order to visualize the fallopian tubes, the uterus is elevated and antiflexed and tilted from side to side.

The grasping forceps are now used to secure the fallopian tube approximately 2 centimeters from the cornua of the uterus, and the tube is retracted away from the uterus in a position such that complete visualization is allowed without other tissues in close proximity to the grasping forceps. Under voice command of "on" and "off" from the operator, a coagulating current is applied with a coagulating instrument which is set at 40 with a burning time of approximately 5 seconds. This procedure is repeated until the tube is thoroughly blanched for approximately 1.5 centimeters on either side of the grasping forceps. The fallopian tube is released and the area surveyed. The procedure is repeated on the other fallopian tube, the grasping forceps are removed, the cutting forceps introduced, and the burnt area of each tube is cut in three separate places. After the area is found to be free of bleeding and accidental burns, the upper abdominal contents including the liver and gall bladder are examined. The laparoscope is removed and the remaining carbon dioxide allowed

to escape through the cannula's trumpet valve. The cannula is removed and the incision closed with a continuous absorbable subcuticular suture and covered with a band-aid. The drapes and tenaculum and curette are removed and the patient is sent to the recovery room.

Results

In the first one hundred cases the mean anesthesia time, which begins when the patient is brought into the operating room, was 56.7 minutes (25-120 mins.), and mean surgery time was 21.3 minutes (15-60 mins.). These averages were obtained even though the procedure was used for teaching of both residents and students for both the gynecological and anesthesia house staff, and includes the first 25 cases which were performed with a double puncture technique, a process that lengthens the usually quick procedure. A dilatation and curettage was not performed on the first 52 patients but was done routinely on the last 48, after the occurrence of two pregnancies⁷ which existed at the time of the sterilization. One of these patients' pregnancy was terminated by a suction curettage and the other by intra-amniotic saline technique. Both were later determined to have bilateral tubal blockage by hysterosalpingography. To date, no pregnancies have been known to occur subsequent to the sterilization procedure. Three patients had other procedures performed accompanying their sterilization: one had a breast mass excised and two had suction curettage for therapeutic abortions.⁸

Complications

Complications observed during the one hundred cases are divided into those occurring during and those occurring after the operative procedures. There were 8 cases in which complications occurred during the operative procedure. These were: 2 uterine perforations secondary to the dilatation and curettage, neither patient suffering sequelae secondary to the perforation; 2 skin burns which resolved spontaneously and required no treatment; 1 recto-sigmoid burn which was treated conservatively without problems; 1 mesosalpinx bleeding controlled by the cautery; 1 subumbilical hematoma which required no treatment; 1 pulmonary aspiration of stomach contents after exubation. In retrospect, there was some doubt as to whether this patient did, in fact, aspirate, since a chest X-ray was within normal limits and the patient had no

symptoms postoperatively. Two patients were found at the time of surgery, to have bilateral hydrosalpinx; tubal fulguration was nevertheless performed. One of these two patients had no subsequent problems, though the other bled from the mesosalpinx. This was controlled by cauterization. Both underwent five days of antibiotic treatment. There were sixteen postoperative complications of a minor nature, which are mentioned here only because they necessitated hospital stay beyond 12 hours. These were: nausea, with or without vomiting, and dizziness, 9; postanesthesia lethargy, 4; hypotension of no specific origin, 1; mild ileus, 1; and abdominal cramps, 1. One patient developed a left tubo-ovarian abscess which was treated successfully with antibiotics, but necessitated two rehospitalizations for a total of eleven days.

Hospitalization Length

Sixty-eight patients had only a twelve hour hospitalization and nine hospitalizations were electively prolonged beyond twelve hours. There were twenty-three hospitalizations that were necessarily prolonged beyond twelve hours. Five of these were observed overnight as a precaution following complications during the operative procedure, and two were observed overnight because of their hypertension. Sixteen were observed overnight for minor postoperative complications, including one who also had a complication during the operative procedure.

Comment

As can be seen by these first one hundred cases, the use of the laparoscope for tubal

sterilization is a safe, effective method. Most patients recover quickly and have no serious problems. Despite this, the uninitiated will encounter numerous small technical problems which may prolong the procedure (now usually requiring 10-15 minutes) or lead to complications. While serious complications have been reported,⁶⁻⁹ the majority of patients under the care of a physician well acquainted with the technique and possible hazards have no significant problems.

REFERENCES

1. Wheelless, CR, Jr and Thompson, BH: Laparoscopic Sterilization Review of 3,600 Cases. *Obstet Gynecol*, 1973, 42, 751-758.
2. Chaturachinda, K: Laparoscopic Sterilization: An Outpatient Procedure. *Am J Obstet Gynecol*, 1973, 115, 487-490.
3. Edgerton, WD: Experience with Laparoscopy in a Nonteaching Hospital. *Am J Obstet Gynecol*, 1973, 116, 184-191.
4. Liston, WA, Bradford, WP, Downie, J, Kerr, MG: Laparoscopy in a General Gynecologic Unit. *Am J Obstet Gynecol*, 1972, 113, 672-677.
5. Thompson, BH, Wheelless, CR: Gastrointestinal Complications of Laparoscopy Sterilization. *Obstet Gynecol*, 1973, 41, 669-676.
6. Mercer, JP, Lefler, HT, Jr, Hulka, JF, Fishburne, JJ: An Outpatient Program for Laparoscopic Sterilization. *Obstet Gynecol*, 1973, 41, 681-684.
7. Hulka, JF, Soderstrom, RM, Corson, SL, Brooks, PG: Complications Committee of the American Association of Gynecological Laparoscopists. First Annual Report. *J Reprod Med*, 1973, 10, 301-306.
8. Whitson, IG, Ballard, CA, Israel, R: Laparoscopic Tubal Sterilization Coincident with Therapeutic Abortion by Suction Curettage. *Obstet Gynecol*, 1973, 41, 677-680.
9. Steptoe, P: Gynecological Laparoscopy. *J Reprod Med*, 1973, 10, 211-226.

* * *

Clinical Center Study of Patients with Ewing's Sarcoma

The cooperation of physicians is requested in the referral of patients with Ewing's Sarcoma for a continuing study of adjuvant chemotherapy, measurement of immune competence and immunotherapy being conducted by the Radiation Branch of the National Cancer Institute at the Clinical Center, National Institutes of Health, Bethesda, Maryland.

Patients who have received no treatment are preferred, but selected patients with previous therapy (irradiation or surgery of the primary tumor) will also be accepted for admission as inpatients. Upon completion of their studies, patients will be returned to the care of the referring physician, who will receive a summary of findings.

Physicians interested in having their patients considered for admission to this study may write or telephone:

Thomas C. Pomeroy, M.D. or
Ralph E. Johnson, M.D.
Clinical Center, Room B3B38
National Institutes of Health
Bethesda, Maryland 20014
Telephone: (Area Code 301) 496-5457

Spontaneous Hypertonic Uterine Contractions

FRANK H. BOEHM, M.D.

The hypertonic uterine contraction is an occasional complication of labor augmented with a uterine stimulant.¹ The uterus becomes more responsive to stimulants such as oxytocin, ergot derivatives, and spartein sulfate, as the pregnancy advances in duration, with the term gestation being the most responsive.² Hypertonic uterine contractions, generally defined as prolonged uterine hypertonicity, have been seen in our hospital with oxytocin levels as low as 0.25 mU per minute perfused through a Harvard infusion pump.* A spontaneously occurring hypertonic uterine contraction, however, is an uncommon event.

Most textbooks discuss the tetanic contraction in relationship to obstructed labor.^{3,4} Stander, however, does state that occasionally this accident may occur when everything seems to be going normally.³ Greenhill's only mention of spontaneous tetanic contraction is that it may respond to deep surgical inhalation.⁵ More recently, Favier noted that irregular contractions accompanied by an increase in basal tone can occur during an induction as well as spontaneously.⁶ Since documentation is usually lacking, the condition often unrecognized, and multiple variables often present to make a definite diagnosis of a spontaneously occurring tetanic contraction questionable, reports of such events are rarely mentioned. A case of spontaneously occurring tetanic contractions at our institution prompted this report.

L.J., an 18-year-old primigravida with an expected date of confinement of September 24, 1972, entered the Labor and Delivery area at approximately 38 weeks gestation at 6:25 P.M. on September 10, 1972 with intact membranes. Her antepartum course was within normal limits. The physical examination was entirely unremarkable with a fundal height of 34 cm. The cervix was 2 cm dilated, 50% effaced, and the vertex was at a 0 station. Clinically suspected tetanic contractions were noted by the nurses on several occasions,

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*Harvard Apparatus Co., Inc., Millis, Mass.

**Corometrics, North Haven, Conn.

and because of the intense pain secondary to these prolonged contractions, Meperidine, 50 mg, and Propiomazine, 20 mg, were given intravenously at 6:45 P.M. The patient's amniotic membranes were ruptured, and the patient had an internal fetal monitor** applied by inserting a polyethylene catheter connected to a strain gauge and applying a clip electrode to the fetal scalp at 10:30 P.M.

Spontaneously occurring tetanic contractions were noted on the fetal monitor tracing (Figs. 1 and 2). The hypertonic contractions had peaks of intensity of at least 45 mm of mercury with levels recorded as high as 75 mm of mercury. The patient's blood pressure remained within normal limits throughout her labor. The patient was given Meperidine, 50 mg, and Propiomazine, 20 mg, intramuscularly, again at 1:35 A.M. on September 11, 1972. The patient was given no uterine stimulants, and her hematocrit was noted to be 37 on admission. A total of 11 such hypertonic uterine contractions were recorded over a 300 minute interval with fetal distress being noted after 7 such contractions. Vomiting was associated with some of the early hypertonic patterns (Figs. 1 and 2).

A diagnosis of fetal distress was made when late deceleration patterns were noted on the monitor readout, indicating possible uteroplacental insufficiency

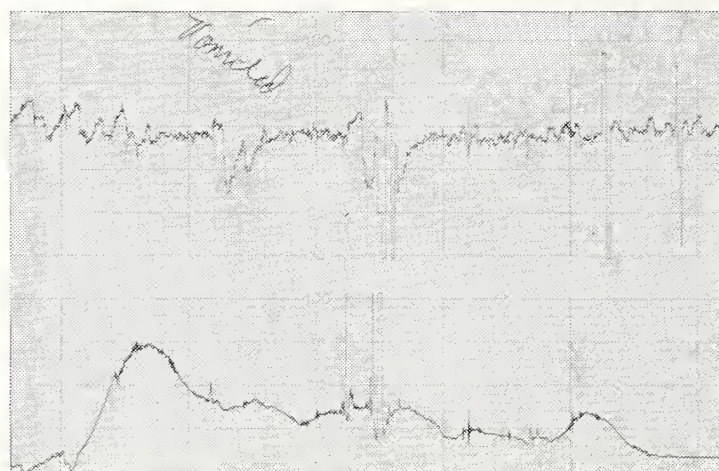


FIG. 1. Fetal monitor tracing revealing a spontaneous hypertonic uterine contraction with a normal fetal heart rate pattern. Emesis spiking is seen. (Paper speed: 3 cm/min; 336 seconds of recording).

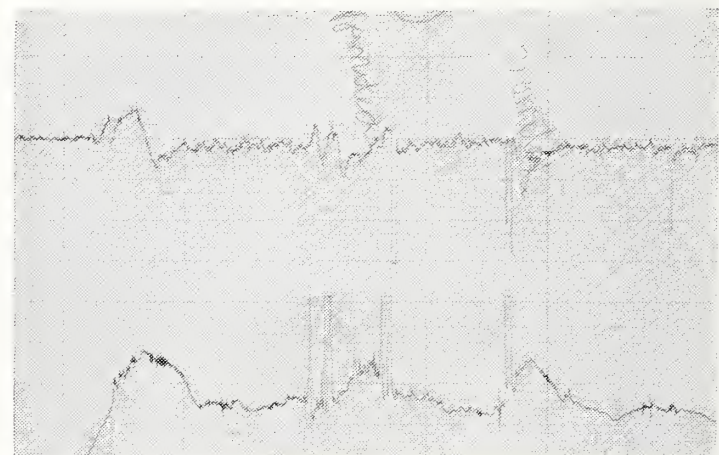


FIG. 2. A more prolonged spontaneous hypertonic uterine contraction (348 seconds of recording).



FIG. 3. Fetal monitor pattern revealing late deceleration following a hypertonic contraction (504 seconds of recording).

(Fig. 3).⁷ The patient was placed on her side and given mask oxygen, however, the late deceleration pattern persisted, and she was taken to the delivery room where under saddle block anesthesia a mid-forceps delivery was performed resulting in the birth of an Apgar 7. 6 lb. 11 oz., male infant. Total labor duration was 11 hours and 48 minutes. At the time of delivery no abruption of the placenta was noted. The three points scored off the Apgar were for respiration, color and muscle tone. The patient and neonate did well post partum.

COMMENT

To make a diagnosis of a spontaneously occurring tetanic contraction the following criteria seem necessary: 1) no administration of uterine stimulants; 2) an elevated intrauterine baseline pressure of 20 mm of mercury or greater, measured by an intra-amniotic catheter after proper calibrations; 3) a duration of this elevated pressure of at least 120 seconds; 4) the absence of variables such as abruptio placentae and obstructed labor; 5) the presence of complications secondary to uterine hypertonicity, such as fetal distress and/or uterine rupture. While this fifth criterion is not mandatory for establishing a diagnosis of a spontaneous tetanic contraction, it does make the diagnosis more tenable.

Uterine tonus has been defined as the lowest pressure reading in millimeters of mercury between contractions. Tonus increases with cervical dilatation, the mean being 3.87 mm of mercury in early labor and 13 mm of mercury at 7 cm.⁸ Because of this, 20 mm of mercury was utilized at our institution as a minimum level necessary to indicate pathology. The measured duration of uterine contractions ranges between 50 and 120 seconds at all stages of cervical dilatation.⁹ Thus, utilizing 120 seconds as the duration required for labeling a contraction as hypertonic seems necessary. Since elevated intrauterine baseline pressures have been seen with conditions such as abruptio placentae,⁵ obstructed labor,^{3,10} following intrauterine manipulation in an attempt to effect delivery,¹⁰ local irritants to the cervix or uterine

wall,⁵ such as a ruptured intraperitoneal dermoid cyst,¹¹ these factors need be ruled out before hypertonicity can be labeled as spontaneous.

Meperidine given intravenously in doses of 100 mg has been noted to increase uterine tonicity, frequency, intensity, and uterine activity within three minutes, with the effect lasting only a short period of time.¹² Our patient was noted clinically to have hypertonic contractions prior to the first administration of Meperidine, and the recorded documentation of these hypertonic contractions read on the fetal monitor was made some four hours after its administration. Meperidine, 50 mg, was given intramuscularly approximately two hours prior to delivery after numerous such hypertonic contractions had already been noted. Therefore, these contractions are not related to Meperidine.

The occurrence of these well-documented spontaneously occurring tetanic contractions suggests that the myometrium could possibly be highly sensitive to endogenous levels of oxytocin. Since very dilute concentrations of oxytocin have resulted in hypertonic uterine contractions, this is not an inconsistent theory. Uterine blood flow decreases as the intrauterine pressure reaches about 30 mm of mercury, and this decline continues to the peak of the contraction or beyond.¹³ This then would explain the presence of fetal distress and acid base changes seen with prolonged hypertonic uterine contractions.⁶

The late deceleration patterns seen in this patient indicated fetal distress. The fact that it took seven such hypertonic episodes before this pattern of uteroplacental insufficiency was noted indicates the presence of a viable healthy fetus at the onset of labor with gradual deterioration after prolonged exposure to stress. The occurrence of such hypertonic uterine contractions in an already compromised fetus would possibly be more injurious at an earlier stage of labor. Significant is the fact that while tetanic contractions most commonly occur in the patient augmented or induced by oxytocin, an occasional patient will exhibit spontaneously occurring hypertonic uterine pressure curves which may lead to fetal distress.

The treatment of choice consists of placing the patient on her side, administering oxygen as well as uterine relaxants, if possible followed by delivery if signs of fetal distress persist.

Appreciation is given to Drs. James Johnson and Robert Tosh for the use of this case report.

REFERENCES

1. Cerevka, J, Scheffs, JS, Vasicka, A: Shape of uterine contractions (intra-amniotic pressure) and corresponding fetal heart rate I. Spontaneous and oxytocin induced labors. *Obstet Gynecol*, 35:695-703, 1970.
2. Cibils, LA, Hendricks, CH: Effect of ergot derivatives and sparteine sulfate upon the human uterus. *J Reprod Med*, 11:147-167, 1969.
3. *Textbook of Obstetrics*. Edited by H Stander. New York, D. Appleton Century Company, 1945.
4. *Management of Obstetrical Difficulties*. Edited by P Titus. St. Louis, C. V. Mosby Company, 1945.
5. *Obstetrics*. Edited by J Greenhill. Philadelphia and London, W. B. Saunders Company, 1965.
6. Favier, J, Helfferich, M: The effects on the fetus of an abnormal contraction pattern in the induction of labor with oxytocin. *Am J Obstet Gynecol*, 112:1107-1113, 1972.
7. *An Atlas of Fetal Heart Rate Patterns*. Edited by E Hon. New Haven, Harty Press, Inc., 1968.
8. Krapohl, AJ, Myers, GG, Caldeyro-Barcia, R: Uterine contractions in spontaneous labor. *Am J Obstet Gynecol*, 106:378-387, 1970.
9. Schulman, H, Romney, SL: Variability of uterine contractions in normal human parturition. *Obstet Gynecol*, 36:215-220, 1970.
10. *Obstetrics for Students*. Edited by L. Townsend. Melbourne, Australia, Melbourne University Press, 1969.
11. Boehm, FH, Pruett, KA, Zamore, LH: A ruptured dermoid cyst in labor stimulating abruptio placentae. A possible complication of amniocentesis. *J Reprod Med*, 9:41-42, 1970.
12. Sica-Blanco, Y, Rozada, H, Remedio, MR: *Am J Obstet Gynecol*, 97:1096-1100, 1967.
13. Brotanek, V, Hendricks, CH, Yoshida, T: Changes in uterine blood flow during uterine contractions. *Am J Obstet Gynecol*, 103:1108-1116, 1969.

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Vigorous Cough Recommended To Dislodge Food From Throat

Choking on food is much more common than generally recognized. It sometimes is fatal.

What can you do if you inadvertently try to swallow a big chunk of steak and find it stuck in the windpipe?

Summon all the air in your lungs for one blasting, vigorous cough, says an article in the current (November) issue of *Archives of Environmental Health*, a publication of the American Medical Association.

Cough right in the middle of the dinner table. Don't stand on ceremony and try to make it to the rest room. There isn't time. The urgent need is to get rid of the object that is blocking the throat. Cough it up in the middle of the dinner table, immediately.

"When you are stoppered like a bottle with a cork in it, you must hack with whatever remaining air you can squeeze from your lungs," says Theodore H. Ingalls, M.D., of Framingham, Mass.

"There's no time to make a dash for the washroom."

"And if you have occasion to help another who is choking, don't be afraid to give a good, hard, openhanded slap on the back, right between the shoulder blades. And if it isn't a him, remember that women have equal rights too."

* * *

There may be an explanation for a hangover. The December issue of *LISTEN Magazine* reports new findings regarding the true nature of sleep.

Using an electroencephalograph, Dr. William Dement of California found that when you sleep with dreams, there is a better chance you will wake up calm and relaxed. Sleeping without dreams, says Dr. Dement, will cause an unusually tense and irritable feeling when awake.

Studies by Dr. Michel Jouvet of France show that alcohol reduces the amount of dreaming time. He has found that dreaming cannot begin unless there are the right amounts of three brain chemicals present: serotonin, monamine oxidase, and noradrenalin. Dr. Jouvet says that alcohol prevents the formation of monoamine oxidase, thus creating a non-dreaming state.

This, then, is a possible explanation of a hangover. More to drink results in dreaming too little. When you wake up in the morning, you suffer from a mild case of dream deprivation, and as a result you feel lousy and irritable.

Fetal Death in Utero Management With Laminaria and Prostaglandin F₂A

SAMUEL S. BINDER, M.D., BILLY G. BLACK, M.D.,
KARIM ISKANDER, M.D.

Fetal death in utero is always an enigma to the obstetrician. Although various causes for fetal death in utero have been described, in most instances the cause is unknown and etiology is not found. Among those diseases included as causes for fetal death in utero are erythroblastosis fetalis, diabetes mellitus, congenital defects, metabolic and hypertensive disorders, syphilis and malaria.¹ It is important to make an early diagnosis to the satisfaction of the obstetrician and the patient in order to prevent the severe anxieties surrounding the circumstance. According to Pritchard, a dead fetus retained for five or more weeks before evacuation of the uterus may be associated with serious hypofibrinogenemia in about one out of four cases.²

It is important, therefore, that the diagnosis of fetal death in utero be made as early as possible to prevent this serious complication. It is also important to be sure that the fetus is no longer viable, to prevent the destruction of a healthy, normally developing baby.

The difficulties of diagnosis sometimes require a waiting period to determine whether or not there are growth patterns to the uterus. Fetal death in utero may be suggested initially when the mother notes the absence of fetal motion for a period of time. Where fetal heart tones cannot be detected by the usual fetoscopy, the use of a doppler instrument has been of value.³ Very frequently a radiological approach is helpful in looking for signs of intrauterine fetal death. Where these are inconclusive, amniography has been effective in diagnosing intrauterine fetal death. Ultrasound apparently has also been of some value, but further studies are necessary for the mid-trimester observation.⁴

Once the diagnosis is made the problem of management is urgent since the danger of delay in emptying the uterus may lead to coagulation defects. Although hypertonic saline infusion into the amniotic sac has been used effectively, serious

complications and deaths with this method have been described.⁵

A recent case experience on the service of the Baroness Erlanger Hospital has proved helpful in the management of fetal death in utero. This case involves the use of amniography for diagnosis, laminaria insertion and Prostaglandin F₂A for evacuation of the uterus.

CASE PRESENTATION

The patient is an 18-year-old white female who had been attending prenatal clinics since February of 1974. She had been followed in the outpatient department of the Baroness Erlanger Hospital and had several admissions for the study of postural hypotension. As of the date of admission to the hospital for the current problem, the etiology of this condition had not been determined.

She was seen in the emergency room on the morning of 4/6/74 for postural hypotension and, incidentally stated that she had not felt the baby move for three weeks. Though fetal heart tones were heard during the previous month, and she also had felt the baby move.

Examination in the emergency room with a fetoscope and with a doppler instrument failed to demonstrate fetal heart tones, and she was admitted to the hospital with a diagnosis of postural hypotension and syncope and possible intrauterine fetal death.

Obstetrical History: Gravida II, para I. The patient's first pregnancy terminated in December, 1971 with a normal vaginal delivery with low forceps and right mediolateral episiotomy.

Past Medical History: The patient had a known positive PPD since the age of 9. She had been treated for gonorrhea in March of 1974.

Family History: Of no significance. Her mother had a number of spontaneous abortions, however, there was no history of congenital abnormalities or stillbirths in the family.

Physical Examination: The patient was admitted to the hospital where her blood pressure was 100/60. General physical findings were normal. Abdominal enlargement was present. The fundal height was 24 cm, measured by caliper. No fetal heart tones were detected. Pelvic examination confirmed the enlarged uterus with a closed cervix. Estimated fetal size according to fundal height was 20-22 weeks. The remainder of the examination was not significant. Coagulation studies were within normal limits.

Management in hospital: To determine fetal death in utero a flat plate of the abdomen was ordered, but was inconclusive; the x-ray revealed a fetus in breech presentation. An amniogram was done on 4/9/74 at 9:30 a.m. Under aseptic technique a number 18 venocath was introduced transabdominally into the uterus. Forty cc's of Megalumine biatrizoate was introduced into the uterus and a flat plate was taken. The flat plate was repeated in two hours and failed to show any evidence of opaque media in the gastrointestinal tract of the fetus. (Fig. 1) The x-ray findings were conclusive for intrauterine fetal death.

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FIG. 1. Two-Hour Post Injection Amniogram Demonstrating Dead Fetus

The fetus is clearly outlined because of tissue edema. There is no dye in the G.I. tract. Placenta is seen in the right cornual area and dye is noted in the renal system of the mother. Dye through maternal kidneys also demonstrate dilated ureters bilaterally.

At 3:45 p.m. the same day, under aseptic conditions, three small and two medium laminaria were inserted into the cervix. It was found at 7:45 p.m. that the catheter which had been left in for the injection of prostaglandin was clogged and could not be used. It was removed and an additional amniocentesis was performed and another venocath inserted into the uterus. Forty mg of Prostaglandin F_2A was inserted into the amniotic sac. At 10:45 p.m. the patient had passed the macerated fetus but the placenta remained within the uterus. At 11:40 p.m., with additional IV pitocin, the patient passed the placenta spontaneously. The uterus was examined and found to be clean of any placental or membrane fragments. No postpartum bleeding occurred and the following morning the patient was in good condition without complaints, afebrile, and without evidence of vaginal bleeding. She was dismissed, to be followed in the clinic.

DISCUSSION

The case presented is one of fetal death in utero in which the diagnosis was confirmed and the uterus evacuated within a 24-hour period. The method of amniography proved helpful

in diagnosing intrauterine fetal death. This was followed by the insertion of laminaria into the cervix to dilate the cervix initially, and the utilization of intra-amniotic Prostaglandin F_2A to evacuate the uterus. The use of amniography has been recently reviewed by McClain,⁶ and it is of value for high risk pregnancy as well as diagnosing fetal death in utero. Prostaglandin F_2A was used in this case as part of a study which is in process, to be reported later.

Our department has not used hypertonic saline, because it has been shown fairly conclusively by Standard and others,^{7,8} to work with varying degrees of coagulopathy. Our recent experience with the use of laminaria and Prostaglandin F_2A instillation into the uterus has shown it to be a promising method to assist in evacuating the uterus for mid-trimester abortion, as well as the problem presented. We feel that the method described here is an effective method in the diagnosis of intrauterine fetal death and its ultimate management.

BIBLIOGRAPHY

1. Reid, Ryan, Benirschke: Principles and management of human reproduction; 1st Ed., W. B. Saunders, Co., 1972.
2. Pritchard, JA: Fetal death in utero. *Obstet Gynecol*, 14:573, 1959.
3. Brown, RE: Detection of intrauterine fetal death. *Amer J Obstet Gynecol*, 102:965, 1968.
4. KoBayoshi, Hellman, Cromb: Atlas of ultrasonography in obstetrics and gynecology. Appleton-Century Croft, N.Y., 1972.
5. Berger, Tietze, Parker, Katz: Material mortality associated with legal abortion in New York state: July 1, 1970-June 30, 1972. *J Obstet Gynec Brit Comm*, Vol. 43, No. 3, 1974.
6. McClain, TR: Amniography indications and techniques. *Contemporary Ob-Gyn*, March 1974, pp. 91-100.
7. Standard, RW, Flessa, HC, Glueckahi, Kiskerct: Changes in maternal coagulation factors after intraamniotic injection of hypertonic saline. *Obstet Gynecol*, 37:660-666, 1971.
8. Feller, FK, Rosenberg, M, Kolkerm and Douglas, GW: Consumptive coagulopathy associated with intra-amniotic infusion of hypertonic saline. *Amer J Obstet Gynecol*, 112:534-543, 1972.

MEHARRY MEDICAL COLLEGE ENDOMETRIAL STROMAL SARCOMA

DR. WILBUR M. BYRD: This 67-year-old nulliparous black female was admitted to the Gynecology service from the Emergency Room of the George W. Hubbard Hospital complaining of postmenopausal bleeding and the passage of a tissue-like mass through the vagina several hours prior to admission. The mass was described as flesh-like and measured 3 x 3 centimeters. Several days prior to admission she had noted postmenopausal vaginal bleeding for the first time and the bleeding had progressively increased until severe hemorrhage occurred on the night of admission. Menopause had occurred 15 years previously and was uncomplicated. She had had no radiation sterilization.

This patient had had the usual childhood diseases. Menarche occurred at the age of 12 or 13 and was normal. The patient had never conceived although she had used no contraceptives. She denied having any surgery and had no history of previous hospitalizations except for that required for a fracture of her arm several years earlier. There was no history of allergy, tuberculosis or diabetes. Her family history and systems review were non-contributory.

Physical Examination: On admission her temperature was 99.6 F, pulse 100, respirations 18 and blood pressure 160/100. She was a well developed, well nourished black female who appeared pale and cachectic. She was oriented as to time and was cooperative. Examination of the head, nose and throat was normal. Her eyes showed bilateral arcus senilis and the fundi grade I Keith and Wagner retinopathy. The pupils reacted to light and accommodation. Examination of the lungs revealed no rales, rhonchi or wheezes. There was a normal sinus rhythm and no cardiomegaly. The PMI was in the fifth intercostal space at the mid-clavicular line. There were no palpable masses in the breasts or axillae. Abdominal examination revealed an ill-defined mass palpable in both lower quadrants. No other abnormal palpable organs or masses were felt. The skin of the labia majora and minora was thin and atrophic, and there was graying pubic hair with a male escutcheon. The anterior vaginal wall was relaxed to the level of the introitus. The vaginal mucosa showed thinning, reflecting estrogen deprivation. Traces of blood appeared in the vaginal vault. There were no gross lesions of the cervix which was small and normally situated, but blood was trickling from the external cervical os. The uterus was anteflexed, soft and 12 to 14 weeks gestational size. It was semi-fixed, and the adnexa were normal to palpation. Rectal-vaginal examination confirmed the above findings.

Laboratory Findings: Hemoglobin was 11.6 gm/100 ml, hematocrit 35%, white blood count 14,192/cu mm and red blood count was 3.8 million/cu mm. The differential showed 83% neutrophils, 15% lymphocytes

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and 1% monocyte. Serum BUN was 34 mg/100 ml, serum chloride was 96 mEq/liter and serum sodium 140 mEq/liter. Blood and vaginal cultures showed no growth. The pathological report of the mass expelled through the vagina revealed that it was a pale, blunted cylindrical mass, composed of necrotic tissue with some endometrical elements.

Admission impressions: (1) postmenopausal vaginal bleeding; (2) intrauterine mass expelled; (3) anemia secondary to (1) and (2); (4) hypertensive cardiovascular disease; (5) uterine enlargement, etiology to be determined.

Hospital Course: After the patient's blood was typed and cross-matched for transfusion, and her hypertension was evaluated and treated, she was then taken to the operating room where differential dilatation and curettage and punch cervical biopsy were performed.

MEDICAL STUDENT: I have a question about the nulliparous history. Was this voluntary? Was she married before and had no children, or was she an old maid?

DR. HENRY W. FOSTER: She was married, and allow me to make this comment. In our population approximately 10% of married couples are infertile. However, three of these ten infertile couples are voluntarily infertile, whereas the remainder are thought to be involuntarily infertile.

MEDICAL STUDENT: I would like to know something about this mass: the size, the location, etc.?

DR. BYRD: I did not enter this information into the protocol because I was unable to answer most of these questions. I felt that there was a mass in the pelvis. It was not dramatic enough or far enough out of the pelvis for me to make a more definite determination.

DR. FOSTER: May I make a comment at this point. I have been faced with similar situations. I think that a better choice of words would be an "ill-defined mass." Sometimes you do get a fullness, but you really cannot say, for example, if it is 8 or 10 centimeters, etc. You have an impression that the pelvis is occupied by some ill-defined or non-specific fullness rather than a distinct mass. A mass, in a sense, connotes positive and definable confines while a fullness is a bit more indefinite and nebulous.

DR. BYRD: I think it might be helpful if I gave my pelvic examination findings again. On examination we concluded that the mass was in the uterus, was soft and was 12 to 14 weeks gestational size. This was about all we could determine. The tubes and ovaries were not palpable and we couldn't determine whether or

not the mass, which was movable, extended to the lateral pelvic wall.

DR. FOSTER: Dr. Byrd, were these findings confirmed on both rectal and vaginal examination, or were they by vaginal examination alone?

DR. BYRD: This was by rectal-vaginal examination.

DR. FOSTER: Are there any other questions regarding physical findings?

MEDICAL STUDENT: What is the explanation of the 14,192 white blood count?

DR. BYRD: This is a good point for speculation. Due to the fact she expelled a necrotic tissue mass from the cervix in the Emergency Room, we presume she developed some degree of intrauterine infection. At this point I think that this is about all we are free to say.

DR. CHARLES E. McGRUDER: In a case such as this, I think we should speculate about the various causes of vaginal bleeding in a postmenopausal woman. For example, women can bleed from atrophic vaginitis especially following intercourse. They may also bleed from taking estrogens but we know she did not take hormone therapy.

MEDICAL STUDENT: Would you please tell us again what was done in the hospital?

DR. FOSTER: She had a fractional dilatation and curettage. As you heard from the pathological report, the tissue was composed of necrotic material with some endometrial glandular elements. In view of the findings of a pelvic mass, postmenopausal bleeding, and the pathological report of glandular elements we must assume that the cause of her admission was related to the endometrium. Our next step must be to diagnose, confirm or rule out the possible disorders involving the endometrium which could be responsible for her symptomatology.

DR. HAROLD O. BERNARD: May I say one word here as to responsibility. I don't think we have taken everything into consideration. In view of the fact that she passed a mass, could this lady have had a degenerate myoma or an endometrial polyp that passed vaginally?

DR. FOSTER: I agree that these should be considered. She could have had a lithopedion. These sometimes erode and pass through the vagina. However, I would say from the histological report presented there is no support for these possibilities.

DR. McGRUDER: Who among the medical students wants to speculate about the diagnosis of material obtained on dilatation and curettage?

MEDICAL STUDENT: Quite possibly the specimen could have shown endometrial adenocarcinoma.

DR. McGRUDER: That is a good choice.

DR. FOSTER: Is there anyone here who would disagree with this diagnosis if we had not had a pathological report? It certainly would have been the most likely diagnosis. Nobody could argue with this, but it so happens that this is not what she had. If it had been the diagnosis, the case would not have been as interesting as it is now. What else could this lady have had?

DR. McGRUDER: I am not sure, but there are many other diagnoses which might be considered.

DR. BYRD: Okay, now I will add a few little pertinent pearls into the protocol. I think a very significant positive statement was the mention of possible radiation induced menopause. This should have given someone a hint.

DR. FOSTER: This is important information since unfortunately many years ago women received x-ray treatment for abnormal bleeding problems. This should serve as a key statement. Also what about trophoblastic disease? In this age group, of course, it would be embryonic origin as is seen in men.

DR. BYRD: One other bit of pertinent information is the character of the lesion. These lesions characteristically simulate the pregnant uterus. Her uterus was not only enlarged but it was soft. This uterus in a lady 30 years would be considered a pregnant uterus and most physicians would refuse to place an intrauterine device in such a uterus.

DR. McGRUDER: Something that wasn't mentioned in the protocol is that this lady had no chest x-ray. From what has been said thus far, my diagnosis would be uterine sarcoma.

DR. FOSTER: Dr. McGruder has the correct diagnosis. However, this woman had a rare form of uterine sarcoma. She had endometrial stromal sarcoma.

DR. McGRUDER: In all my practice I have only seen one previous case of endometrial sarcoma.

DR. FOSTER: It is good to remember there are four basic sites of origin of sarcoma in the uterus: (1) in the myometrium, (2) in the stroma of the endometrium as in this case, (3) in myomas, and (4) in any of the blood vessels of the uterus.

DR. PHILLIP A. NICHOLAS: When the

continued on page 668

HISTORY

This 29-year-old white male was admitted to St. Thomas Hospital because of severe dyspnea and hemoptysis. He had been known to have congenital heart disease since birth and on three previous occasions (the last, one year ago) had undergone cardiac catheterization with the finding of a ventricular septal defect and severe pulmonary hypertension. Pulmonary artery pressures had been found to approach systemic levels and during exercise systemic arterial desaturation with mild cyanosis had been noted.

Surgery had not been advised and he was considered to represent an example of the so-called Eisenmenger syndrome. (Large ventricular septal defect with severe irreversible pulmonary hypertension). His electrocardiogram (ECG) is dramatically abnormal and is illustrated in Figure 1.

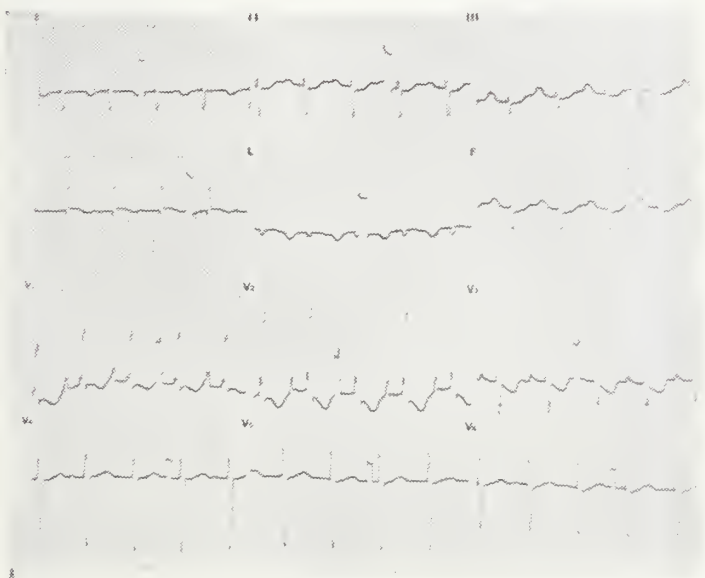


FIG. 1

DISCUSSION

The most obvious abnormality involves the

From the Department of Cardiology, St. Thomas Hospital, Nashville, Tenn. 37203.

magnitude and direction of both the QRS and P waves. The arm leads are *not* reversed as might be suspected by analysis of standard lead I and he does not have situs inversus of the abdominal viscera. Marked rightward deviation of the QRS is noted. The possibility of left posterior hemiblock as a cause of the right axis deviation (RAD) is remote in the presence of severe chronic pulmonary hypertension. The degree of right axis deviation and anterior displacement of the QRS vector is noteworthy. It should be recalled that the normal newborn ECG is much more "right ventricular" than after enough time has elapsed for systemic blood pressure to "mature" the ECG toward the normal left ventricular dominated pattern of the adult.

The degree of right ventricular enlargement (RVE) due to disease acquired after normal "electrical maturation" of the ECG is not usually as remarkable as in the above example. Thus the evidence of RVE in an adult with mitral stenosis might be RAD without a significant anterior QRS vector. The extreme degree of RVE evidenced in the ECG of the above patient reflects the presence of pulmonary artery pressures approximating or equal to systemic pressures since infancy.

The P waves in this patient are also of interest in that they are unusually anterior, inferior and somewhat rightward. Although rightward direction of the P wave is distinctly unusual as a manifestation of uncomplicated right atrial enlargement (RAE), the normal position of the abdominal viscera minimizes the possibility of atrial inversion.

Final ECG diagnosis: Severe right ventricular and right atrial enlargement.

Final pathophysiologic diagnosis: Ventricular septal defect with severe pulmonary hypertension (Eisenmenger syndrome).

HARRY L. PAGE, JR., M.D.
W. BARTON CAMPBELL, M.D.
Co-Directors

* * *

Hereditary Spherocytosis

The cooperation of physicians is requested in the referral of patients with hereditary spherocytosis in need of splenectomy for a study of the effects of hemolysis on hepatic function being conducted by the National Institute of Arthritis, Metabolism, and Digestive Diseases' Section on Diseases of the Liver at the Clinical Center, National Institutes of Health, Bethesda, Maryland.

Patients will undergo studies of bilirubin production and other aspects of hepatic function. Following these baseline studies splenectomy will be performed when clinically indicated for the management of hemolysis. Physiologic studies will be repeated during the post-operative recovery period.

Physicians interested in having their patients considered for admission to this study may write or telephone: Paul D. Berk, M.D., Clinical Center, Room 4D-52, National Institutes of Health, Bethesda, Maryland 20014. Telephone: (301) 496-1721.

Loculated Pleural Effusion

(Answer on page 672.)



FIG. 1



FIG. 2

From the Department of Radiology, University of Tennessee Medical School and the Memphis VA Hospital, Memphis, Tenn. 38103.

* * *

Staff Conference

continued from page 666

disease originates in the walls of blood vessels, the prognosis is poorest.

MEDICAL STUDENT: Do you mean in terms of years?

DR. NICHOLAS: Yes.

DR. BYRD: Within two years nearly all such patients are dead.

MEDICAL STUDENT: What about early diagnosis? Would that have helped this woman?

DR. FOSTER: I don't know. I do not believe this would affect the five year survival. You see, one of the main problems in early diagnosis is that it is difficult to accomplish and also such sarcomas are highly malignant.

Clinical Presentation

60-year-old black male with shortness of breath.

Please examine the roentgenogram in Figure 1. The opacity in the right mid lung most likely represents:

- 1) Bronchogenic Carcinoma
- 2) Right middle lobe atelectasis
- 3) Bronchial adenoma
- 4) Pseudotumor

MEDICAL STUDENT: Do all uterine carcinomas bleed?

DR. NICHOLAS: No, those in the myometrium do not bleed early.

DR. FOSTER: Now let us hear about treatment.

DR. BYRD: The fact that she does not have distant metastases will influence what we do. She should have a pelvic sweep, and whether or not to use irradiation postoperatively is a matter of philosophy.

DR. NICHOLAS: These tumors are characteristically radioresistant and whatever we do the prognosis is uniformly poor. However, I certainly agree that total abdominal hysterectomy with removal of the adnexa as well as postoperative irradiation should be offered this woman.

Pseudoaldosteronism

Pseudoaldosteronism is a familial renal disorder characterized by hypertension and renal wastage of potassium affecting both sexes of successive generations. The clinical symptoms are the same as those present in primary aldosteronism but there is negligible aldosterone secretion. The hypertension and hypokalemia respond to triamterene, an agent which inhibits renal tubular ion transport either in the presence or absence of aldosterone.

CLINICAL SYMPTOMS

The patients with pseudoaldosteronism studied at Vanderbilt had hypertension and hypokalemic alkalosis but had aldosterone secretory rates that were actually subnormal when on normal sodium diets as well as when they were placed on low sodium diets. Correction of their hypokalemia for brief periods also failed to elevate their aldosterone secretory rates to normal. Plasma renin and angiotensin levels were also suppressed to very low values.

Patients with pseudoaldosteronism are considered not to have an excess of any mineralocorticoid, since, in contrast to patients with mineralocorticoid excesses, their salivary sodium-potassium ratios are high; their electrolyte excretion cannot be modified by treatment with adrenal inhibitors or mineralocorticoid antagonists; their urinary steroids are either within normal limits or, in the case of aldosterone, subnormal.

When placed on a low potassium diet, the

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pseudoaldosteronism patient shows limited ability to conserve potassium.

The rationale of therapy is to administer an agent that will promote the excretion of sodium and the conservation of potassium. In patients with steroid hypertension these objectives can be achieved by the administration of aminoglutethimide (which inhibits steroid biosynthesis) or by the administration of spironolactone (which blocks the actions of mineralocorticoids). Neither of these agents is effective in pseudoaldosteronism; one would not expect them to be if the primary disorder were one of renal tubular dysfunction rather than one of mineralocorticoid excess. Instead, pseudoaldosteronism is treated with triamterene, a drug which acts directly on the renal tubule to promote sodium excretion and potassium conservation, and which does so in the absence as well as in the presence of mineralocorticoids.

Patients with pseudoaldosteronism have been successfully treated, with consistently normal blood pressures and consistently normal serum potassium concentrations, for as long as fourteen years, using triamterene 100 to 200 mg daily. Before treatment became available, the disorder was known to result in early death from such complications of hypertension as cerebral hemorrhage.

REFERENCES

1. Liddle, GW: Aldosterone Antagonists and Triamterene. *Annals NY Acad Sci*, 139:466-470, 1966.
2. Liddle, GW, Bledsoe, T, and Coppage, WS, Jr: A Familial Renal Disorder Simulating Primary Aldosteronism but with Negligible Aldosterone Secretion. *Trans Ass Amer Physicians*, 76:199-213, 1963.

* * *

Birth Control Pills Sometimes Add to Heart Disease Risk

Birth control pills and the estrogen often administered to women following the menopause sometimes cause increases in cholesterol and other fats in the blood, an important risk factor leading to heart disease, says a report in the current (Feb. 4) issue of the *Journal of the American Medical Association*.

A research group from the University of California at Los Angeles reports on three cases of elevated blood fats among post-menopausal women on estrogen therapy and one case in a woman receiving oral contraceptives. In all cases the level returned to normal when the medications were discontinued. Each of the patients had a mild tendency toward high blood fats even without the estrogens.

Patients with a tendency toward elevated blood fats probably should not receive estrogen therapy, the report declares. They advised that women receiving oral contraceptive and post-menopausal estrogen therapy should be checked at six-month intervals for blood fats level.

NUTRITION AND ITS ROLE IN PREGNANCY

Diets for pregnant women have been given special attention throughout recorded history. Some foods have traditionally been restricted or prohibited. The restrictions seem to have had strong appeal in ancient times, but remain common today among both primitive societies and some highly developed cultures despite a consistent lack of scientific data.

The need for accurate information on the nutritional needs of pregnant women is underscored by the American College of Obstetricians and Gynecologists in their "Policy Statement on Nutrition and Pregnancy"¹ (December 1972):

"A woman's nutritional status before, during, and after pregnancy contributes to a significant degree to the well being of both herself and the infant. Therefore, what a woman consumes before she conceives and while she carries the fetus is of vital importance to the health of succeeding generations."

A basic concept to the understanding of the role of nutrition in reproduction is that pregnancy is a normal state, not a pathological one. Since pregnancy is normal, a pregnant woman's nutritional status and her diet should be thought of as contributing to normal processes leading to the birth of a healthy, full-term baby; they should not be thought of as a means of forestalling possible complications.²

Nutrition problems which may require the attention of physicians caring for pregnant women include nutritional supplementation, caloric intake and sodium metabolism.

NUTRITIONAL SUPPLEMENTATION

Vitamins Other than Folic Acid

R. M. Pitkin and his associates in their "A Selective Review of Clinical Topics—Maternal Nutrition,"³ present the following findings. Double blind studies have usually failed to show that vitamin supplements have a beneficial effect on pregnancy outcome. Although the evidence does not indicate that vitamins have a positive effect, neither does it generally note that there are harmful results. Vitamin D, however, is a

possible exception. There is evidence that suggests a relationship between maternal hypervitaminosis D and the development of severe infantile hypercalcemia. For this reason, no increase in vitamin D is recommended during pregnancy.

The most potential danger of routine vitamin supplementation during pregnancy is that it may convey a false sense of security regarding nutritional status. Vitamins will not compensate for poor eating habits.

Iron and Folic Acid

In a normal pregnancy maternal erythropoiesis increases at the very time that appreciable nutritional demands already exist—because of the nutrient needs of the fetus. Therefore, it is not surprising that anemia is a rather common complication of pregnancy. Normal hematopoiesis takes place only under conditions of appropriate nutritional intake. For example, in hemoglobin production there must be an adequate supply of protein to furnish essential amino acids; there must be sufficient calories to prevent wasteful catabolism of these amino acids. Folic acid, vitamin B₁₂ and several other vitamins are also needed for this process, because they serve as cofactors in the synthesis of heme and globin. Iron and other metals, including copper and zinc, must also be available.

If iron is readily available, the iron utilization in a pregnancy with a single fetus amounts to about 800 mg; multiple fetuses require more. If this amount is spread over the last half of pregnancy, when virtually all the placental transfer to the fetus takes over, the iron needed for pregnancy totals nearly 6 mg per day. To this amount 0.5-1.0 mg must be added to cover daily losses of iron through the gut, the urinary tract and the skin.² This relatively large amount of iron might be obtained from the following sources:

1. Maternal iron stores. Maternal iron is available, but frequently in amounts insufficient for demand. Iron stores in young healthy American women have been found to average about 300 mg.⁴ In addition, many women enter pregnancy with no iron stores, possibly as a result of multiple pregnancies

or menstrual blood loss.

2. Food. Food rarely provides enough iron in order to allow 6-7 mg to be absorbed per day. The usual diet of pregnant women contains 10 to 15 mg of iron daily, of which only 10 to 20 percent (1 to 3 mg) is absorbed.
3. Supplementation. A simple ferrous salt taken during pregnancy will furnish sufficient iron to both mother and fetus.

Frequent findings, especially in deprived populations, of biochemical and cytologic changes which suggest maternal folate deficiency have resulted in the trend toward routine folic supplementation during pregnancy. The benefits of widespread folic acid supplementation during pregnancy have not been determined, but it will eradicate megaloblastic anemia due to folate deficiency. The only recognized danger from daily ingestion of folic acid during pregnancy is its potential for masking the symptoms of Addisonian pernicious anemia. This risk seems small in view of the low incidence of Addisonian pernicious anemia in the reproductive years and the unlikelihood that a daily dose of between 200-400 μ g would mask neurologic complications.³

CALORIC INTAKE

After publication of *Maternal Nutrition and the Course of Pregnancy*² by the National Academy of Sciences in 1970, many physicians began to re-evaluate the practice of severely restricting weight gain during pregnancy. Recently studies have linked excessive weight restrictions to increased incidence of low weight infants. As a result, the 1972 Policy Statement of American College of Obstetricians and Gynecologists¹ states that (1) caloric intake approximately 10 percent above nonpregnant requirements is advisable, and (2) weight gain during pregnancy should not be restricted unduly, nor should weight reduction normally be attempted. The average weight gain in normal pregnancy is 10 to 12 kg (22 to 27 lbs).

Most interest with respect to excessive weight gain has been in relation to its suspected relationship to toxemia of pregnancy. The concept that limiting weight gain during pregnancy by caloric restriction protects against toxemia was derived from the reduction in the incidence of eclampsia in Europe during World War II. Because the war brought about a scarcity of food, pregnant women gained less, and it was con-

cluded without further study that the restricted diet was protective. During the 1920s and 1930s caloric restrictions intended to limit weight gain were widely advocated in the United States as a means of preventing toxemia and other complications. The practice found its way into textbooks and until recently had been widely adopted by the medical profession.

To be sure, some retrospective studies indicated a relationship between excessive weight gain and toxemia (and other complications of pregnancy), but these studies have generally failed to distinguish between actual tissue accumulation and extracellular fluid retention. Recent studies have failed to show a relationship between excessive weight gain, on the basis of fat accumulation, and toxemia of pregnancy. Likewise, the hypothesis that excessive weight gain predisposes to a number of other obstetric complications, such as abortion and postpartum hemorrhage, seems to have little supportive evidence. Although it is a fact that a larger weight gain in pregnancy will usually be associated with a larger infant, the increase in the infant's weight usually is not great enough to cause mechanical difficulties during delivery. Even if it were, limiting maternal weight gain for the sole purpose of limiting fetal size hardly seems acceptable, in view of modern obstetric concepts.

SODIUM METABOLISM

Two reports from Washington have aroused the concern of many practicing physicians, since the reports question a long established doctrine. A recommendation in the report of the White House Conference on Food, Nutrition and Health⁵ states: "The wisdom of restricting sodium and administering diuretics during the course of normal pregnancy must be questioned and the practice examined critically." The second statement appearing in the National Academy of Sciences report on *Maternal Nutrition and the Course of Pregnancy*² indicates that "the matter of salt restriction requires reassessment" and that "the practice of routinely restricting sodium intake, and at the same time prescribing diuretics is potentially dangerous."

Pike's⁶ experiments with rats indicate that the requirement for sodium is greatly increased during pregnancy, and this may also be true in human beings. Studies such as these have led to the Policy Statement on Nutrition and Pregnancy,¹ which includes: "Essential nutritional elements (such as sodium) should not be re-

stricted during normal pregnancy."

The time for reappraisal of the role of sodium intake during pregnancy is long overdue. It has become apparent that dietary sodium limitation is difficult to justify on the basis of either laboratory animal or clinical evidence and, indeed, may upset the balanced biochemical and physiologic adjustments normally associated with increased nutrient requirements during pregnancy.⁷

SUMMARY

The renewed interest in nutrition during the prenatal period has resulted in changes in some widely accepted obstetric practices. Current recommendations are:

1. Vitamin and mineral supplements should not be considered a substitute for sound nutrition.
2. A simple ferrous salt is recommended during pregnancy to furnish sufficient iron to both mother and fetus.
3. A folic acid (200 to 400 μ g) daily supplementation is recommended as prophylaxis against megaloblastic anemia.
4. There is no evidence that prescribed caloric

* * *

(Answers to X-Ray of the Month from page 668.)

Pseudotumor caused by loculated pleural fluid.

Note in Figure 2 that the opacity has disappeared and that this chest film was exposed only 3 days following the one in Figure 1. This patient had been in congestive heart failure. Digitalization compensated it and the "tumor" disappeared when the pleural fluid absorbed. Note also decrease in heart size and pulmonary congestion.

Pleural fluid may become loculated anywhere in the pleural space, either between parietal and visceral pleural over the periphery of the lung or between visceral layers in the interlobar septa.^{1,2,4} Encapsulation is caused by adhesions between contiguous pleural surfaces and tends to occur during or following episodes of pleuritis such as pyothorax or hemothorax.³ A potential space often remains between 2 layers of pleura in which fluid may accumulate. Loculated interlobar effusions are most commonly caused by congestive heart failure and may be transient, reappearing in the same or different locations during recurrent bouts of failure. These effusions produce pseudotumors which are usually elliptical with convex borders and with extremities that blend imperceptibly with the interlobar fissure.

These pseudotumors often simulate masses and

restriction in pregnancy has any effect on the incidence of toxemia and no evidence that women who gain excessively in fatty tissue are more likely to develop toxemia than women who do not.

5. Sodium restrictions are contraindicated during normal pregnancy.

REFERENCES

1. The American College of Obstetricians and Gynecologist, "Policy Statement on Nutrition and Pregnancy," December 1, 1972.
2. *Maternal Nutrition and the Course of Pregnancy*, National Academy of Sciences, Washington, D.C., 1968.
3. Pitkin, RM, et al, 1972: "A Selective Review of Clinical Topics—Maternal Nutrition." *Obstets-Gynec*, 40:773.
4. Scott, DE and Pitchard, JA, 1967: "Iron Deficiency in Healthy Young College Women." *JAMA*, 199:897.
5. White House Conference on Food, Nutrition and Health, Final Report, United States Government Printing Office, Washington, D.C., 1970.
6. Pike, RL, Nelson, J, and Lehnkuhl, MJ, 1962: "Some Effects of High and Low Sodium Intakes during Pregnancy in the Rat." *Jour Nutrit*, 78:325.
7. Pike, RL, and Smiciklas, HA, 1972: "A Reappraisal of Sodium Restriction during Pregnancy." *Intrnl Jour Gynec and Obstets*, 10:1.

* * *

have been operated on. If in the lateral view, the long axis of the opacity conforms to the position of the distended fissure and the tapering extremities fade into the fissure, however, a diagnosis of pseudotumor should be suspected. Further supportive evidence is an enlarged heart and pulmonary venous congestion. Confirmation is obtained if the "mass" disappears with compensation of the congestive heart failure. In Right Middle Lobe Collapse, at least one border of the opacity is concave or straight, whereas in interlobar effusion both margins are usually convex. True mass lesions such as bronchiogenic carcinomas and bronchial adenomas do not disappear.

JACK C. CLARK, M.D.

STEPHEN L. GAMMILL, M.D.

REFERENCES

1. Feldman, DJ: Localized Interlobar Effusion in Heart Failure. *JAMA*, 146:1408, 1951.
2. Felson, B: *Chest Roentgenology*. Philadelphia, W. B. Saunders Company, 1973, p 360-365.
3. Fraser, RG, and Pare, JA: *Diagnosis of Diseases of the Chest*. Vol. I, Philadelphia, W. B. Saunders Company, 1970.
4. Storey, CF: Encapsulated Pleural Effusion Simulating Mediastinal Tumor: Report of Two Cases. *Radiology*, 58:408, 1952.

Blood Group Analysis and Pregnancy

One of the most significant medical milestones of this century was the simultaneous discovery of the Rhesus blood group system and the elucidation of erythroblastosis fetalis in 1940.

Although fetomaternal blood group incompatibility may be due to any of the many hundreds of blood group antigens, the most common and clinically significant factor involved is the Rhesus antigen Rh₀(D).

In spite of the fact that the etiology, pathology, therapy, and prophylaxis of Rh isoimmunization has been clearly defined, there is no doubt that erythroblastosis fetalis will continue to claim many infants each year.

The introduction of Rh immune globulin for the prevention of isoimmunization focused attention on the problem and in many instances publicity has created concern on the part of expectant parents. A significant number of expectant mothers are subjected to unnecessary mental anguish when they are told they are Rh negative, simply because the husband's Rh type is not determined. Fifteen to seventeen percent of Rh negative females are mated to Rh negative males. Identification of such matings immediately eliminates mental morbidity on the part of both prospective parents.

Much prognostic information can be gained from a complete blood group analysis of the prospective mother and father. Some assurance may be gained by identification of the antigenic differences in the two individuals that are known to be associated with a decreased incidence of isoimmunization. The factors include the ABO blood groups and the specific Rhesus factors possessed by each prospective parent. Although the antigen Rh₀(D) is known to cause 90 percent of the cases of erythroblastosis, the other Rhesus factors c(hr'), C(rh'), E(rh''), and ē(hr'') may also cause the disease. The particular combination of antigens possessed by the prospective father may give some identification of zygosity for the D antigen. For example, a male who has the phenotype CcDēē has a 94 percent

chance of being heterozygous for the D antigen. In contrast, a male whose phenotype is CCDēē has only a 4 percent chance of being heterozygous for the D antigen.

The complete blood group analysis affords not only prognostic information regarding potential catastrophic fetomaternal incompatibility but also provides clues to the identification of unexpected maternal antibodies detected during emergency compatibility testing. Antibodies present in maternal serum, unassociated with clinically significant disease in the newborn, include those directed at Rhesus factors other than the D antigen.

Another significant factor to be considered is the antigen D^U. In a recent study on 1200 mated couples, 1.5 percent of the women previously classified as Rh negative were found to be Rh₀(D^U) positive. In most instances, there is no fetomaternal incompatibility between a D^U positive mother and a D positive infant and therefore the D^U mother has no need to be concerned. Recent studies, however, indicate the possibility of mosaic differences between a normal D positive infant and a D^U positive mother. This has not been completely elucidated at this time.

Maternal sensitization to Rh incompatible cells may occur in conditions other than term delivery, including therapeutic and pathologic abortion, ectopic pregnancy, and unrecognized massive fetomaternal bleed.

The laboratory can be of invaluable assistance in cases where there is coexistent ABO and Rh incompatibility. A positive direct Coombs test on an infant's cells associated with a negative antibody screen on the maternal serum quite frequently is due to ABO incompatibility. An eluate made from the infant's cells will clearly demonstrate the lack of Rhesus antibodies. In such instances, the mother should be given Rh immune globulin.

We can expect new developments and refinements in the criteria for the use of Rh immune globulin, including specific dosage based on calculated fetomaternal hemorrhage. For the present, however, we should adhere to the published criteria for the use of Rh immune globulin. It is important to remember that in pretransfusion studies, Rh testing is preventive; but in obstetrics, it is not only preventive but prognostic and should be performed on both the prospective mother and father.

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Nuclear Cardiology

In the last few years the application of radio-nuclides to the study of cardiac function has been so explosive that we are virtually witnessing the birth of a new field: nuclear cardiology. In nuclear cardiology there are three general areas of development:

1. The study of infarcted myocardium with technetium complexes.
2. The study of viable and ischemic myocardium with potassium analogues and fatty acids.
3. The study of pump function with intravascular tracers.

In this first of a three part series, we will consider the use of tracers that image infarcted myocardium.

When a myocardial infarction occurs and muscle fibers become non-viable, the cristae within mitochondria disappear and crystals form. These crystals are thought to be hydroxyapatite crystals like those formed in bone, since they absorb calcium and phosphorous compounds. Bearing this in mind, Bonte used technetium pyrophosphate to achieve very acceptable "hot spot" images of infarcted myocardium in experimentally induced infarcts in dogs as well as in humans with myocardial infarctions. The technetium 99m pyrophosphate "hot spot" images can first be appreciated about twelve hours post infarction, reach a peak concentration in the infarct in one-to-two days, and become very difficult to demonstrate six-to-seven days post infarction. The optimum imaging time is 30-to-60 minutes post injection, approximately 2 hours earlier than the optimal time of localization of this agent in bone. This agent achieves an infarct to normal myocardium ratio of 10-1, which is adequate for imaging and slightly better than the ratios obtained with technetium polyphosphate and technetium diphosphonate.

Since the technetium pyrophosphate has already been approved for bone scanning and since the absence of adverse reaction with very large doses attests to its safety, this agent will probably be given early approval for this type of study by

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the Food and Drug Administration.

Two problems are attendant with the use of technetium phosphate compounds:

1. Only muscle that is irreversibly infarcted is imaged, and not ischemic muscle that will recover.
2. Occasionally the ribs and sternum which overlie an area of infarction may concentrate so much technetium pyrophosphate that it would be difficult to image the underlying infarction unless subtraction techniques (usually employing a computer) are applied.

Chelates such as technetium tetracycline and technetium glucoheptonate, as well as gallium 67 citrate, will also localize in the infarcted muscle. The mechanism of localization has not been clearly identified. Technetium tetracycline is thought to localize in intracellular organelles (nuclear chromatin and ribosomes) in ischemic muscle which may or may not be irreversibly damaged. It apparently does not localize in old fibrous scars. Technetium glucoheptonate localization in infarcted muscle is not understood. It was originally thought that the glucoheptonate behaved as glucose does but this is now known to be incorrect. Gallium citrate goes to white cells which concentrate in an area of infarction, and is non-specific in its method of localization. These agents concentrate best in an infarction that is two days old and show maximum concentration 24 hours after injection.

The clinical value of these agents is somewhat diminished when compared with technetium pyrophosphate because:

1. The pharmaceutical preparation is more difficult than that of pyrophosphate (particularly tetracycline).
2. The 24 hour delay between the time of injection and the time of scanning is clinically undesirable.

On the other hand, localization of these agents in damaged muscle that may be able to recover, as well as in totally infarcted muscle that can no longer recover, may make interpretation of the images more difficult but also more valuable than images made with technetium pyrophosphate. At

continued on page 676



from the regional medical programs

On July 1, 1974 the Tennessee Mid-South Regional Medical Program was awarded \$2,027,636 for the support of health care projects throughout the region. This money became available as a result of a successful civil suit filed against the Administration for the release of impounded funds.

Dr. Richard O. Cannon, Program Director, stated that the following projects were approved by the Regional Advisory Group for funding:

Rural Student Health Coalition—Center for Health Services, Vanderbilt students will conduct health fairs in the East Tennessee Mountains. \$49,505.

Student Apprenticeship in Family and Community Health—Meharry Medical College students will work on projects emphasizing community medicine. \$15,800.

Hypertension Follow-up Program—Alton Park Community Center, Chattanooga. \$90,650.

Southeast Health Services Education Program—Southeast AHEC, Chattanooga. \$115,978.

Mid-East Health Services Education Program—U.T. AHEC, Knoxville. \$20,512.

Coordinated Pediatric Education Service System—U.T. Memorial Research Center and Hospital, Knoxville. Services for high-risk neonates. \$125,330.

Regionalization of High Risk New Born Care—Vanderbilt. High-risk newborns will be transported to Vanderbilt from outlying areas, and training will be provided for professionals. \$147,305.

Cayce Homes Community Clinic—Nashville. \$85,540.

Nurse Clinician Projects—Cleveland. Primary Care will be provided in Bradley and Polk Counties. \$14,900.

High Risk Obstetrics—Vanderbilt. Quality care will be provided for high-risk pregnancies in outlying areas. \$37,382.

Upper-East Tenn. EMS System—Johnson City, Telemetry in coronary care will be tested in one hospital as part of the total EMS system. \$23,655.

Wynn-Habersham Clinic—United Health Services of Tenn. and Kentucky. Primary health care services to the rural, medically-underserved. \$33,026.

Tenn.-Appalachian Nurse Midwifery Project—Kingsport. Nurse-midwives provide pre-natal, maternity and post natal care to the medically underserved. \$22,176.

Organ Donor Education Program—Kidney Foundation, Nashville. \$53,119.

Public Health Education—Vanderbilt. An attempt to

improve teaching of health in public schools. \$50,960.

Chronic Kidney Disease Patient Care System—Vanderbilt. \$118,803.

Hypertension Screening—Chattanooga Area Heart Association. \$11,400.

Cost Reduction of Health Services—South Central CHP, Columbia. \$23,677.

Regional Dental Project—Health Department, Johnson City. A mobile dental van for isolated rural areas. \$49,400.

Meigs County Primary Care Project—Decatur. \$78,039.

Primary Care Program for Stoney Fork, Tenn.—\$12,179.

Public Health Mobile Clinic Services—Clarksville. \$5,006.

"Life Adjustment" Services for the Cancer Patient—E. Tenn. Cancer Research Ctr., Knoxville. A plan will be developed to help cancer patients meet their physical and emotional needs. \$27,674.

Planning for Lung Cancer Detection—E. Tenn. Cancer Research Ctr., Knoxville. \$50,118.

Hypertension Management Center—Knoxville Neighborhood Health Services. \$68,263.

Pneumoconiosis Surveillance & Management Program—E. T. Chest Disease Hospital, Knoxville. \$40,368.

Venereal Disease Information Center—Nashville. \$19,579.

Southeast Tenn. Rehabilitation Therapy Program—Chattanooga. \$52,619.

Upper-East Tenn. Dialysis Project—Johnson City. \$24,415.

Tenn. Hospital Engineering & Safety Program—Nashville. The services of a qualified maintenance engineer will be provided to small hospitals on a shared basis. \$35,910.

RAP House Community Clinic—Nashville. \$66,432.

Training of Nurse Practitioners for Chronic Care—Central State Psychiatric Hospital, Nashville. \$86,611.

Career Ladders for Allied Health Personnel—Aquinas Jr. College, Nashville. Allied health personnel in small hospitals will improve their skills by earning A.D. degrees. \$23,423.

Dental Auxiliary Modular Educational Program—Chattanooga State Technical Community College. \$47,500.

According to Dr. Cannon, these projects will be supported through June 30, 1975.



from the tennessee department of mental health

Commitment procedures to Mental Health Treatment facilities were amended by Acts of the 88th General Assembly in its second session. The amendments were made to simplify the law and to put into written law rulings that the Court had established in common law or case law.

Previously the only access to a treatment resource for a drug abuser or an alcoholic was through a court having jurisdiction over misdemeanors. The 1974 General Assembly amended Title 33, Chapter 800,¹ et seq. so that all mentally ill persons (the statutory definition includes alcoholics and drug abusers) who have no criminal charges or convictions against them can have the same commitment procedures.

Commitment of drug abusers or alcoholics who are not convicted or charged with a misdemeanor or felony now fall into four categories as do any other commitments for mental illness. Patients who come voluntarily seeking treatment may now apply directly to the superintendent or director of the treatment resource. If there are available beds, the patient will be admitted. Upon written request to the superintendent or director, he may be released within forty-eight hours of the receipt of his request.

The second category deals with individuals who are brought by a concerned friend, guardian, or relative. This individual may be brought directly to the superintendent. For admission the petitioning party should have a certification of two physicians who have examined the individual within the past three days, which certifies to the individual's need for evaluation of his symptoms of mental illness and/or the need for treatment. Though the individual does not directly request

treatment, he must not object to treatment. He, too, is entitled to release at his written request or the written request of relative or friend and, for this type of admission, seventy-two hours may lapse between request and discharge. The superintendent may deem it advisable to refuse, and in that instance a judicial hearing must follow.

A third admission procedure is provided for a patient who is dangerous to self or others. This procedure is initiated by an arresting officer or any practicing physician who considers the individual in need of hospitalization and treatment and therefore takes the individual into custody, without an arrest warrant. Secondly, the patient is required to be examined by two physicians, and then the county judge of the county of the patient's residence must have immediate notification of the allegations against the patient. The judge may select one of three options: He may order immediate release of the individual, order the individual held at the treatment resource pending a hearing, or he may order the patient hospitalized.

The fourth procedure is the judicial hospitalization by which a relative, friend, or guardian, can by court proceedings, commit an individual who needs treatment and is not able to recognize the need.

The foregoing are identical with the provisions that have existed since 1965 for the care of mentally ill persons, and the statutes do now what the definition for mental illness sought to do when it was written to include alcoholism and drug abuse.

Alcoholics and drug abusers who have gone contra to the law are under different admission procedures, and they will be discussed next month.

* * *

Nuclear Medicine

continued from page 674

the present time there is no large clinical series of human myocardial infarction studies with both the pyrophosphate and technetium tetracycline to compare the accuracy of these agents. Regard-

less of which radiopharmaceutical agent gains major acceptance, we will certainly see the development of small portable gamma cameras as well as improved methods of evaluating myocardial infarction.

ROBERT L. BELL, M.D., *Director*

THE COOPER REVIEW

Answer true or false unless otherwise indicated

(Answers found beginning on page 697.)

1. A previously healthy 49-year-old man describes a single "spell" which occurred several days previously. At that time he noted the abrupt onset of marked weakness and clumsiness of his right arm and hand, a strange feeling of lightheadness, and difficulty speaking properly. All of these complaints subsided in a half hour and have not recurred. The most likely diagnosis is:

- a. Focal seizure
- b. Multiple Sclerosis
- c. Transient cerebral ischemic attack
- d. Hysterical paralysis

The proper course of management at this point should be:

- a. Simple reassurance
- b. Anticonvulsant medication
- c. A vasodilator drug
- d. Complete physical exam and further study
- e. Anticoagulant therapy

2. With regard to cardiac papillary muscle dysfunction, the following statements are true or false:

- a. There is usually significant mitral regurgitation.
- b. The apical systolic murmur is rarely associated with a thrill.
- c. Mid-systolic clicks are frequent.
- d. The murmur may be sometimes confused with that of aortic stenosis.

3. The first symptom of the presence of a chromophobe adenoma of the pituitary gland is usually:

- 1. A lowered metabolic rate.
- 2. A depression in sexual function.
- 3. Symptoms of diabetes insipidus.
- 4. Headache.
- 5. Moderate obesity.

4. A 74-year-old man presents to your office with a chief complaint of pain and stiffness of his neck, shoulders and hip regions. He states that he has been told he has osteoarthritis and treated by another physician with Indocin, without real relief. On physical examination there is really no tenderness to palpation of any of his muscles or joints, and there is no limitation of motion. You are suspicious that the patient may indeed be suffering from polymyalgia rheumatica. Which of the following lab tests would help to insure this diagnosis?

- 1. Rheumatoid factor
- 2. Antinuclear antibody by the immunofluorescent technique.
- 3. X-rays of the cervical spine, hips and shoulders
- 4. Westergren sed. rate
- 5. Uric acid

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Healing nicely, but it still **HURTS**

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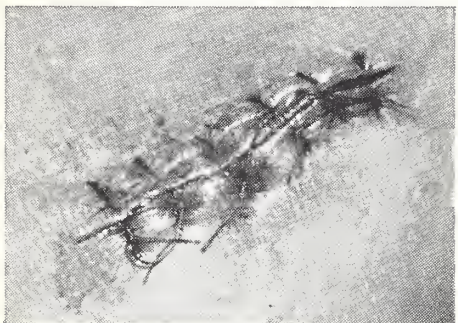
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When parenteral analgesia is no longer required, Empirin Compound with Codeine usually provides the relief needed.

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Empirin Compound with Codeine is effective for visceral as well as soft tissue pain—provides an antitussive bonus in addition to its prompt, predictable analgesia.

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HERE

Nasal fracture

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#4, codeine phosphate* (64.8 mg.) gr. 1

**from the
executive
director**

J. E. BALLENTINE

MEDICAL DIGEST

NEWS OF INTEREST TO DOCTORS IN TENNESSEE

TENNESSEE FOUNDATION FOR MEDICAL CARE RECEIVES OPERATIONAL CONTRACT

. . . The operational budget for implementation of PSRO, funded by the Federal Government for the next eighteen months, has been approved. The amount is \$1.6 million for the Tennessee Foundation to implement peer review, required by Federal law, for 83 counties in PSRO Area II of Tennessee . . . The contract was made by the U.S. Department of Health, Education and Welfare . . . Generally, the Foundation in keeping with the Federal law, will review what happens to each Federally-subsidized patient once he is admitted to a hospital . . . A "physician advisor" in each hospital will deal with the question of medical treatment. A panel of physicians will be named to resolve cases where the patient's attending physician disputes the opinion of the advisor. Physicians will control the quality of care for the Federal program . . . It makes the physician responsible for the quality of care, and puts him in the position of certifying the quality.

* * * * *

"MEDICAL UNDERGROUND" CLAIM . . . According to the June 20 New England Journal of Medicine, a number of uncertified and unlicensed foreign medical graduates are caring for patients without proper supervision. The Journal article stated that the results of the survey made raised serious questions concerning the regulations of the delivery of medical care in the United States. The results "are sufficient to cause alarm regarding the state of control of the health care system" . . . Data shows that more than ten thousand unlicensed physicians were working in the health field as of 1971 . . . The study also reported that an increasing number of foreign-trained doctors were taking the ECFMG Examination once they have already entered the country, rather than going through the approved route of taking the exam before entering the U.S. The article stated of the 3,935 foreign medical graduates, 48% were already working in the health field at the time they took the certifying exam in this country.

* * * * *

AMA HOUSE OF DELEGATES ACTIONS

PSRO SURVIVES AT AMA SESSION . . . The 247-member AMA House of Delegates voted in favor of the Reference Committee report for continuing efforts to constructively amend the PSRO law to eliminate objectional features. The vote was 185 to 57. The implementing resolution stated:

" . . . Instructs the Board of Trustees to seek constructive amendments to the PSRO program, particularly in potentially dangerous areas such as confidentiality, malpractice, development of norms, quality of care, and the authority of the Secretary of HEW. . . . Directs the AMA to continue efforts to achieve legislation which allows the profession to perform peer review according to

established medical philosophy in the best interest of the patient.
... Emphasizes that state medical associations which elect non-compliance with PSRO are not prevented from doing so by the new policy, but urges such associations to develop effective non-PSRO programs embodying the principles endorsed by the profession as PSRO alternatives."

... The new policy provides that in the event the PSRO program does, in fact, adversely affect patient care or conflict with AMA policy, the Board of Trustees will be instructed to use all legal and legislative means to rectify these shortcomings."

* * * * *

LENGTHY AMA HOUSE SESSION . . . Meeting for a total of 19 hours and 38 minutes, the House acted on 66 reports and 137 resolutions for a total of 203 items of business over the five-day period . . . Speculation over possible changes in PSRO policy by the House dominated the attention of those attending the House session, including the media.

* * * * *

SOME OF HOUSE ACTIONS TAKEN WERE:

- Adopted a report of the Board of Trustees supporting legislation to amend Medicare to provide not only for administrative but judicial review in the courts of Part B claims under Medicare.
- Went on record as being unalterably opposed to blanket pre-admission certification while recognizing in certain local conditions in particular circumstances may make voluntary pre-admission certification desirable.
- Reaffirmed the belief that peer review of medical and health care delivery in Federal institutions is needed and desirable.
- Referred to Council on Medical Service a statement defining cosmetic surgery. Complex problems were cited involving reimbursement rules of health insurance programs.
- Adopted a statement of ethics on artificial insemination, prepared by the Judicial Council, urging concern, consent, competence and confidentiality as guidelines in the practice.
- Adopted a Council on Medical Service report commending efforts to draft a so-called Physician's Bill of Rights. While the intent behind such efforts is good, it would be unwise to codify the many rights and privileges accorded to physicians by custom and tradition.
- Urged medical associations across the country to lobby for acceptance of the AMA Uniform Insurance Claim Form.
- Protested denials of claims for diagnostic hospital admissions. Physicians said the House should be notified in advance of the denial; and where possible, peer review agencies should be brought in to adjudicate all claims' conflicts.
- Backed a moratorium on state licensing of additional health occupations.
- Approved and amended a resolution meant to prevent the National Board of Medical Examiners from assuming supervisory roles in medical education on manpower regulations; Board members assured the Delegates that the National Board had no such intention, and the resolution was revised to point that out.

* * * * *

OPPOSED "PUBLIC UTILITY" MEDICINE . . . The House went on record as being opposed to certain bills in Congress which would replace the Federal Health Profession Education Assistance Act which expired June 30. The House directed the Board of Trustees to mobilize AMA membership in opposition to offensive sections of the proposed legislation and take strong actions on other fronts.

**public
service**



COMMUNICATIONS • LEGISLATION

HADLEY WILLIAMS, ASSISTANT EXECUTIVE DIRECTOR

WAYS AND MEANS COMMITTEE DRAFTING NHI LEGISLATION . . . The House Ways and Means Committee went into executive session in mid-July to begin deliberations and drafting of a National Health Insurance bill. The committee chairman, Wilbur Mills (D-Ark) has promised that his committee will report a NHI bill this year and that the House would pass it. On the Senate side, Chairman Russell Long (D-La) of the Finance Committee, continues to state that he will seek prompt Senate action on any NHI bill the House sends over. It is significant that these two influential legislators are predicting Congressional action in 1974. Many other legislators are skeptical, however, of such a timetable in view of the complexity of the issues involved and other pending problems facing Congress that will require action.

* * * * *

STANDARDS FOR RETENTION AND STORAGE OF MEDICAL RECORDS ADOPTED . . . The Public Health Council recently adopted minimum standards for hospitals in the retention and storage of medical records. The revised regulations are as follows:

- (a) All medical records, either original records or microfilm of the same, shall be treated as confidential and shall be stored in the hospital for a minimum of 10 years following the discharge of the patient, or his death during his period of treatment within the hospital. In cases of patients under mental disability or minority their complete hospital record shall be retained for the period of the minority or known mental disability plus one year or 10 years following the discharge of the patient, whichever is longer.
- (b) X-ray film may be retired 7 years after the date of exposure provided the written findings by a radiologist, who has read and signed such X-ray film reports, are retained for the same period as other hospital records under (a) of this section.
- (c) Upon retirement of the record as provided in (a) and (b) of this section the record or any part thereof retired shall be destroyed by shredding or incinerating, or other effective method in keeping with the confidential nature of its contents. Destruction of such records must be made in the ordinary course of business, and no record shall be destroyed on an individual basis. When records are destroyed the date and time and circumstances of such destruction shall be recorded, with the appropriate entry made on the patient index card.
- (d) Upon the closing of any hospital a person of authority representing the hospital may request final storage or disposition of the hospital's medical records by the Tennessee Department of Public Health. Request by the representative of the institution will give to the Department complete control for final storage of the records in the files of the State Archives. Records will be destroyed in accordance with (a), (b) and (c) above. These records upon receipt by the Department will become the property of the State of Tennessee.

in Brief

A summary of AMA, medical & health news

American Medical Association / 535 North Dearborn Street / Chicago, Illinois 60610 / Phone (312) 751-6000 / TWX 910-221-0300

If an NHI program were enacted, physicians' and dentists' offices would be swamped, costs would be in the billions of dollars and there would be little effect on the life expectancy or general well-being of Americans, according to a report by the Rand Corporation, Santa Monica, Calif. The report, published in the June 13 issue of the *New England Journal of Medicine*, is based on two prototypical national health insurance plans, one providing full coverage and one containing a 25% coinsurance provision. Under the full-coverage plan, the demand for physicians' services would be increased 75%; the demand for hospital services would be increased 5% to 15%; and costs for inpatient and ambulatory services would be increased by \$8 to \$16 billion. Under the coinsurance plan, the demand for physicians' services would rise 30%; the demand for hospital services would increase 0% to 8%; and costs for inpatient and ambulatory services would rise by \$3 billion. The report notes that estimates are conservative, are not corrected for general inflation, and are based on the assumption that supply would equal demand.

A bill designed to hold the production of physicians and other health professionals at about current levels was proposed by the Administration recently. Charles C. Edwards, MD, HEW assistant secretary, said it is also intended to change the "mix" of the kinds of professionals produced. "In our judgment," he said, "if the rate of enrollment increases of the past five years were to continue unabated, we are likely to have a surplus of health professionals, especially physicians and nurses," which is undesirable.

AMA will distribute one complimentary copy of the 26th edition of the *American Medical Directory* to each state, county and medical specialty society on the AMA's cooperative list. Additional copies may be purchased for \$125 in the U.S., possessions, Canada and Mexico and \$140 in all other countries. There will be no free distribution of the *Directory's* supplement, *Directory of Women Physicians in the U.S.*

Medical mail received by physicians has declined 38% since 1959, the Pharmaceutical Manufacturers Association reports. The typical physician gets an average of four pieces of medical mail daily, the PMA said.

Pharmacists would be allowed to substitute generic or chemically equivalent drugs for brand name drugs under a bill passed by the Michigan State Senate. The Michigan State Medical Society has opposed the bill since its introduction in 1973. MSMS was successful in getting an amendment attached to the bill which allows physicians to write "Dispense as Written" or "DAW" on prescriptions when they want specific brands used. There is no provision in the bill for establishing therapeutic equivalence for substituted drugs. After the governor signs the bill, it will become effective Jan. 1.

A major theme at the fourth Western Hemisphere Nutrition Congress, Aug. 19-22, in Bal Harbour, Fla. is the economics of food production. The congress is sponsored by the AMA's Council on Foods and Nutrition and the American Institute of Nutrition in cooperation with the Nutrition Society of Canada and La Sociedad Latinoamericana de Nutricion. Contact Dept. of Foods and Nutrition, AMA Headquarters, for more information.

A new National Institute on Aging, within the National Institutes of Health, will conduct and support biomedical, social, and behavioral research and training related to the aging process, disease and special needs of the elderly. Under a new law creating the institute, HEW must conduct scientific studies to measure the biological, medical and psychological aspects of aging; carry out public information and education programs; and prepare a comprehensive aging research plan within one year.

Available from AMA: "Action Plan for Physician Recruitment," an information packet explaining how to recruit and retain MDs in small towns and rural communities. Available free from Physicians' Placement Service, AMA Headquarters...Audio cassettes of the six major presentations made at the 1974 AMA National Leadership Conference, \$3 each. Write Dept. of Field Services, AMA Headquarters...Audio cassette highlights of the 27th National Conference on Rural Health and the 8th National Conference on the Socioeconomics of Health Care. Tapes for each meeting, \$3 for AMA members and medical societies and \$5 for others, are available from Radio-TV-Film Dept., AMA Headquarters.

New York is a vertigo festival.

Antivert[®]/25 (25 mg. meclizine HCl) Tablets for vertigo*

Antivert[®] (meclizine HCl) has been found useful in the management of vertigo associated with diseases affecting the vestibular system. It is available as Antivert/25 (25 mg. meclizine HCl) and Antivert (12.5 mg. meclizine HCl) scored tablets for convenience and flexibility of dosage. Antivert/25 (25 mg. meclizine HCl) Chewable Tablets are available for the management of nausea, vomiting, and dizziness associated with motion sickness.

BRIEF SUMMARY OF PRESCRIBING INFORMATION

*INDICATIONS. Based on a review of this drug by the National Academy of Sciences-National Research Council and/or other information, FDA has classified the indications as follows:

Effective: Management of nausea and vomiting and dizziness associated with motion sickness.

Possibly Effective: Management of vertigo associated with diseases affecting the vestibular system.

Final classification of the less than effective indications requires further investigation.

CONTRAINDICATIONS. Administration of Antivert during pregnancy or to women who may become pregnant is contraindicated in view of the teratogenic effect of the drug in rats.

The administration of meclizine to pregnant rats during the 12-15 day of gestation has produced cleft palate in the offspring. Limited studies using doses of over 100 mg./kg./day in rabbits and 10 mg./kg./day in pigs and monkeys did not show cleft palate. Congeners of meclizine have caused cleft palate in species other than the rat.

Meclizine HCl is contraindicated in individuals who have shown a previous hypersensitivity to it.

WARNINGS. Since drowsiness may, on occasion, occur with use of this drug, patients should be warned of this possibility and cautioned against driving a car or operating dangerous machinery.

Usage in Children: Clinical studies establishing safety and effectiveness in children have not been done; therefore, usage is not recommended in the pediatric age group.

Usage in Pregnancy: See "Contraindications."

ADVERSE REACTIONS. Drowsiness, dry mouth and, on rare occasions, blurred vision have been reported.

More detailed professional information available on request.

ROERIG 

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New York, New York 10017



E. KENT CARTER

**president's
page**

Let's Mend Our Political Fences

When this issue of the TMA JOURNAL goes to press, our primary elections will be behind us, and the party candidates for various offices will have been selected.

It is time to look at the candidates for all offices, local, State and National, select a candidate for each office and support him. Each of these candidates is important, since they will provide your voice in government for some time to come.

Local candidates may not have as much direct influence on our practice of medicine as the candidates for State and National offices. They do have influence. It behooves us to become their friend and win their influence.

Our political action organizations (IMPACT and AMPAC) do not provide financial aid to local candidates. However, through these organizations physicians can contribute to candidates, who in the judgment of your political organizations, are friendly to medicine. It is not too late to join medicine's political action organizations.

If you do not elect to contribute through our medical organizations, let me urge you to support the candidate of your choice with your personal effort and your private contribution. The next four years will be the most critical that medicine will have to face in the legislative chambers of this country. We must keep our political fences mended and all avenues open to our legislative contact men and our legislative committees.

I recognize the pressure upon you as a physician—from all facets of government, from insurance carriers, from the public, and even from patients—and I do not want to add additional problems. Instead, I urge you to become involved because you can contribute, and because all of us stand to gain from your contribution.

Yours truly,

President

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AUGUST, 1974

editorials

The Political Scene— On Keeping Informed

Under the guise of giving information and sound advice to the public on affairs of health, The Nashville Tennessean on July 27 delivered itself of an editorial filled with error and innuendo, charging the AMA with assorted crimes against the American people, setting forth our White Knights in Washington as the only true and spotless keepers of the nation's health. It is a perfect example of misuse of a set of statistics for purely political purposes. Any thoughtful reader of the editorial, knowing the political bias of the newspaper, would be quick to spot its true intent—support of Senator Kennedy's aspirations to be

the watchdog of the health services of this country. Unfortunately, the vast majority of the newspaper's readers are likely to be neither thoughtful nor perceptive, and since the nature of the editorial was inflammatory, many of its readers will be inflamed—against the AMA, not against the editorial.

I defend the right of the Nashville Tennessean to support Senator Kennedy and his efforts, and I am willing to impute pure motives to the writer of the editorial. My quarrel is with the pragmatism which allows disregard for the truth in presenting and interpreting a set of facts—that there was a 15% increase in the number of medical licenses issued last year over the previous year, *but* nearly half of those were foreign medical graduates (FMG's)¹, interpreted by the writer of the editorial to mean that our medical schools are "failing badly in the effort to overcome the shortage of physicians in the U.S." According to a cited NIH study, there is a deficit of 30,000 physicians. (Other studies, ignored by the paper, indicate that the problem is actually not one of numbers but of distribution.)

The AMA, along with the Federal Government, is charged with poor management, failure to keep abreast of public needs, callous disregard for the health of the people, policies calculated to exclude qualified people from the "close-knit medical fraternity" (whatever that is—I haven't noticed it being all that close knit, witness the power struggle in June in Chicago), to keep the supply of doctors low and fees high. "Experience has shown that when it comes to delivering medical care to the most people at a bearable cost sic the AMA has blundered badly."

Conclusion: "There is no excuse for leaving the American people defenseless against disease and the pain and misery of sickness. . . . The nation's health picture will not change as long as the AMA continues to be given monopolistic power to dictate the nation's medical policies. . . . *It is long past time for the American people to exercise greater control over their institutions of health and medical care and break the AMA's rigid hold on all matters such as health insurance, the training of doctors, and others. But this can only be done by determined political action at the grass roots level and by electing office holders who are sensitive to the people's needs in the area of health and medical care.* (Emphasis mine—Ed.)

Make no mistake. These were not the maunderings of a single editorial writer. This was a

political editorial, and the battle lines are clearly drawn. It is not enough to allow your TMA representatives to fight your battles. Sure—they answered the editorial; and I'm sure their rebuttal went into the circular file. Do you, doctor, have enough information to answer these charges when they are brought up by your patients? Because they will be. You cannot afford to be "too busy taking care of your patients" to bother with such mundane things. Senator Kennedy and hundreds—perhaps thousands—like him have in mind to "exercise greater control over their institutions of health and medical care." Is this what you want?

The news media are very powerful, and exercise great influence, because vast numbers of their readers, listeners, or viewers accept uncritically what comes from them. Too often those in the media themselves accept uncritically what is being fed to them. We must not fall into this same trap—from either side. The Chicago meeting of the AMA should have dispelled any notion that there is a unified thought and voice for "medicine," as the *Tennessean* editorial implied there is, nor, fortunately, is there a unified voice from the media. We are in trouble when everyone begins to think and talk alike.

"Determined political action at the grass roots level" can be countered only by determined political action at the grass roots level. *You* need to be a part of it. To be effective, you need to stay informed.

J.B.T.

REFERENCE

1. Medical Licensure 1973—A Statistical Review. *JAMA*, 229:445, July 22, 1974.

And On Being Available

In line with the thoughts expressed in the previous editorial, the JOURNAL extends its congratulations and thanks to two physicians who accepted the challenge to be candidates for elected office. Though both Dorothy Brown, M.D. and Nat Winston, M.D. came out on the short end of the voting, both ran a good race, and amassed a creditable showing at the polls.

For various reasons, not all of us are suited for public office. But all of us are suited, and even demanded, for support of those who are, and I am certain a lot more of us could make the effort than do. Perhaps more of us would make the effort if they could count on the active support of those of us who stay at home.

We have another election coming up in November. If you want good government, get out

and support the candidate of your choice. In the democratic process, not every candidate can win, but you will have done your part. And in the meantime, thanks, Dorothy and Nat, for being available.

J.B.T.

CME

It has taken several years of coaxing and steady, gentle pressure by your CME committee, implementing the mandate of your elected officials, and with their active support, but at last most of the membership has apparently become convinced of the necessity not only for continuing medical education, but also for documentation of it.

Last fall TMA made application to AMA for consideration of the annual meeting for accreditation. Our thanks are due to the Committee on Scientific Affairs, under the chairmanship of Oscar McCallum, M.D., and to the presidents and program chairmen of the specialty societies, for putting together a program deemed worthy of recommendation for accreditation by the survey team for Category I credit for the Physicians' Recognition Award of the AMA. Accreditation of course is by the Council on Medical Education of the AMA, which approved the survey team report at its meeting in May. This means that any scientific program you attended, either the general session or any specialty society scientific meeting, can be claimed for Category I credit on an hour-for-hour basis, since approval is granted retroactively to include the surveyed meeting.

Too few of you were present. Next year we will meet in Chattanooga. *You* be there, and support your Association.

J.B.T.

Vacation Rumination: Color Patches

Consider the lilies of the field, how they grow. They toil not, neither do they spin. Yet I tell you, even Solomon in all his glory was not arrayed like one of these.

Are not two sparrows sold for a farthing? and one of them shall not fall to the ground without your Father. . . . But the very hairs of your head are all numbered.

Matt. 6:28, 10:29

I-75 is mostly a monotonous double strip of asphalt and concrete which roughly bisects Georgia in connecting Tennessee and Florida and which, except for scattered scenic strips, affords passengers little but boredom. As an antidote, for the times when I wasn't driving I brought along a

book which had been around the house for some weeks, whose title and blurbs had attracted me—Annie Dillard's *Pilgrim at Tinker Creek*.¹ Annie Dillard is a biologist of sorts with an eye for detail, "a penchant for quirky facts," and the soul of a poet. *Pilgrim* is her observations about life as lived during one year by many species, herself included, on Tinker Creek in the Roanoke Valley of Virginia. It is sometimes beautiful, sometimes depressing, even dreary, but always beautifully written and exciting. It told me, for instance, that when children blind from birth because of congenital cataracts have their vision restored, they cannot readily associate objects as they are with their prior mental image of them, and so their newly sighted world is seen for a time simply as a dazzle of color patches, nothing more.

As a thirteen-year-old summer camper I received a certificate for being able to identify accurately two hundred plant species. In the ensuing forty years I have learned several thousand biological names, at the same time forgetting many hundreds of them. (It turned out that way not by design, but because of lack of practice—disuse atrophy.) Although a pathologist is a sort of biologist, most of what I use daily, except my powers of observation, don't do much for me in the outdoor natural world. So this is about biology, but mostly as color patches.

If you have been properly instructed, you can turn eastward and approach Sidney Lanier's "Marshes of Glynn" and their adjacent broad, white beaches, not by the heavily traveled, truck infested U.S. 82, but by a nearly deserted yet well paved, straight parallel road, free of billboards, called unimaginatively, Ga. Route 32. It takes you through Alma, Georgia (coincidentally, the double name of an old friend, who wasn't called that) through a crossroads with the unlikely name of Hortense, and through the Satilla Forest where the road is flanked by dark drainage canals abloom with water hyacinths and occasionally inhabited by herons and other water birds. The pine and hardwood trees become sprinkled with live oaks and an occasional palm, and there is palmetto underfoot in the sandy soil. Brightly blooming thistles and thickets of Queen Anne's lace line the roadside. The odor of salt water makes you open the windows in spite of the heat, as you drive through a darkened tunnel of low hanging limbs of ancient live oaks bearded with Spanish moss and "braided and woven with intricate shades of the vines that myriad cloven

clamber the forks of the multiform boughs." Suddenly you burst into open marsh land.

As with Bre'r Rabbit and his briar patch, I was "bawn an' bred" in the mountains. I love them, and they are home. They have a grandeur and majesty shared by nothing else. It is exhilarating to be on their peaks and bluffs, and the scenery from them is breath-takingly beautiful and awesome. But I go to the seashore whenever I can, because here is all the vastness of the universe, and a sense of freedom that for me is nowhere else, and I'm sure that not even in Tinker Creek is there such an abundance of life in so many forms.

It is impossible to walk along the seashore without being aware that it is teeming with life. Even the relatively sterile dunes are covered with sea oats and grass, and in the mornings are spread with a covering of morning glories. From the top of the dunes you can see marsh on one side of the narrow island and the breaking ocean on the other, and if you time it right, man and his works are far away and out of sight. You become quickly aware of lower forms, though, because the dunes harbor a vicious breed of mosquito, which attack with vigor and in droves. You cut your dune visit short and hurry back to the beach, where you are scolded by screeching gulls for disturbing them and a variety of terns which populate the wide strip of sand. Overhead is a flight of pelicans in perfect V formation. All are hunting, for food abounds, and predation is everywhere. It is easy to get the impression that every form of life exists as food for another, the ultimate being man. Besides this, there is an appalling amount of life constantly coming to inglorious and non-productive end at the seashore and in the ocean. It is the season for starfish, and hoards of "fry" are washed up on the beach to perish in the sun and drying sand. Their undersurface is covered with myriads of small tentacles which undulate purposefully in waves with a sweeping motion, directing floating microscopic plankton toward their centrally located mouths. Scores of snail and conch shells are there, many with a neatly drilled hole through which its owner was despoiled of its house and life. Often the shell is re-occupied by a hermit crab, and shells are often seen scurrying along the beach in unseemly fashion. Numberless masses of varying sorts of bivalve shells, evidence of billions upon multiplied billions of lost lives, are everywhere, and underfoot are sand-dollars, living, newly dead, and bleached.

When the wind is right (or wrong), jellyfish litter the beach—lovely, intricate creatures, but not nearly so lovely—or dangerous—as the Portuguese Man-of-War, which fortunately is rare in these waters. But a few do wash up, with their lovely transparent blue sails, shaped like a conquistador's helmet, standing erect, and a mass of purple to red tentacles coiled underneath. This is also the season when the giant sea-turtles come up on the beach at night under the full moon and bury their eggs, and one morning I found a huge one, dead from the exertion, unable to make it back to the water. Her carapace measured over three feet in length. Dead crabs and crab parts are everywhere.

The multicolored shells, the jelly-fish and the starfish, the sand-dollars, the varicolored sand, the advancing and receding water, often with brown flecked spume at its leading edge, sometimes with seaweed and driftwood—what an enchantment of changing form and color—of color patches. And yet life and death are constantly being worked out here—to what end? The question palls, and calls for an answer, because it is “agin reason.” One answer is that it is all Chance, and that there is no meaning. Or, if there is a creator, why does He do it so? As I thought about it, the answer I got is that we live in a fallen but still beautiful world, and I can see only the back of the tapestry. But my Father knows and cares—He sees the whole picture, and He is “for” His creation. “Not a sparrow falls. . . .”

Since it is all a part of His plan, I don't mind rain at the beach. The beach is for getting wet, anyhow. Raindrops make an everchanging lacy pattern in the sand. The leaden sky makes a perfect foil for the blue-green-gray sea, disturbed only by the breaking waves, and the horizon has disappeared. Over the dunes the sky is black, and the blackness is sometimes cut by lightning. The lightning stays away, but the rain soon comes down in torrents—and stops as suddenly as it began. I was in a real storm once—the edge of a hurricane. That was different. The force of the wind and the surging masses of water are truly awesome. I'm glad I saw it, but I'd as soon not repeat it.

I hurt for those who are so bound by sleep that they miss the sunrise over the ocean. No two are the same. The sun may come up a huge orange ball in a cloudless sky, or there may be only a faint reddish tint to nearly solid clouds; mostly it's in between. First the clouds overhead

catch the first pink rays, and then the color spreads, catching each drifting cloud, turning it from gray to pink to gold, until finally the sun appears, and the clouds are white.

Woe to him who has eyes that see not and ears that hear not. We are trained to observe, but too often we have gun-barrel sight, zeroed in on our own narrow area. Sometimes the treated cataract children live with their restored eyes closed, preferring their old sightless world with their own mental images. How tragic when the color patches never make any other connections in our brains, so that “seeing we see not and hearing we hear not.” Don't just look—see!

J.B.T.

1. Dillard, Annie. *Pilgrim at Tinker Creek*, Harper's Magazine Press. New York, 1974.



June 24, 1974

To The Editor:

The PSRO mechanism, in the judgment of the Union of American Physicians, is foredoomed to failure because it is in reality a cost control review organization. As such, PSRO will become a buffer between the legislator-politician and the public, with the physician being the one who would appear to be denying remedies to patients.

Without being able to control cost factors such as inflation, increased patient utilization demand, budgetary allocation, or even presidential impoundment of funds, physicians would be progressively squeezed into compromises in the quality and quantity of care they could render. What would be considered “superfluous” would soon broaden, in the consequent need to conserve funds. The structure would fall apart. The physician, then, would have “failed” and would receive the wrath of the nation. He would become, in essence, the scapegoat, a role for which he was set up. Before long the Department of Health, Education and Welfare (HEW) would move in to “save” the public and administer the program.

Because of this intolerable situation, the Union of American Physicians has drawn up a special two-part form, a copy of which is attached. This document will fix properly in the mind of every American patient that the real responsibility for the fact that his personal health care is being rationed actually lies in the hands of his elected officials. (*Form is printed below—Ed.*)

Estimates for the distribution of the first twenty million of these forms to every physician in the United States have been obtained, and they will be available immediately upon implementation of PSRO.

We recommend that every physician study and utilize this form. It is the means to avoid taking the blame, and becoming the "patsy" for the PSRO fiasco.

SANFORD A. MARCUS, M.D., *President*
Union of American Physicians
World Trade Center
San Francisco, CA 94111

PATIENT'S NAME

ADDRESS

DATE

CITY, STATE, ZIP

Dear :

On (date) I requested authorization to perform the following (procedure) (tests) (examination) as being necessary to your medical care:

Despite the fact that I regard this as essential in my medical judgment, the request was denied by the local Professional Standards Review Organization, an agency of the United States Government. Prior to the enactment of compulsory Nationalized Health Insurance there would have been no question about this service being rendered. Now, however, I am powerless to intervene in your behalf without placing myself in professional jeopardy. I suggest, therefore, that you complete and mail this form to your congressman without delay.

Sincerely yours,

PHYSICIAN

ADDRESS

CITY, STATE, ZIP

Hon.

CONGRESSMAN OR SENATOR

ADDRESS

DATE

Washington, D.C.

Dear :

Your agency has denied the request of my physician to perform the above designated procedure, which he

regards as necessary to the preservation of my health. As your constituent I respectfully request that you intervene immediately in my behalf in order that I may not be denied this essential care. Thank you for your attention to this matter.

Respectfully yours,

PATIENT

ADDRESS

CITY, STATE, ZIP



OLDS, JOHN G., Halls, died June 16, 1974, age 68. Graduate of University of Tennessee, 1934. Member of Northwest Tennessee Academy of Medicine.

new members

The JOURNAL takes this opportunity to welcome these new members of the Tennessee Medical Association.

BRADLEY COUNTY MEDICAL SOCIETY

Glenn Byers, M.D., Cleveland

CHATTANOOGA-HAMILTON COUNTY MEDICAL SOCIETY

David A. Grigsby, M.D., Hixson

DAVIDSON COUNTY MEDICAL SOCIETY-NASHVILLE ACADEMY OF MEDICINE

Helena P. Brown, M.D., Nashville
Ralph J. Cazort, M.D., Nashville
Sandra G. Kirchner, M.D., Nashville
Henry B. Stokes, M.D., Nashville
Arthur M. Townsend, III, M.D., Nashville
Charles G. Cannon, Jr., M.D., Nashville

MAURY COUNTY MEDICAL SOCIETY

Sidney A. Berry, M.D., Columbia

MEMPHIS-SHELBY COUNTY MEDICAL SOCIETY

John G. Adams, Jr., M.D., Memphis
Irvin C. Baker, M.D., Memphis
Reed C. Baskin, M.D., Memphis
T. Albert Farmer, Jr., M.D., Memphis
Stephen G. Gelfand, M.D., Memphis
Perry D. Holmes, M.D., Memphis
Richard B. Krakaur, M.D., Memphis
Lewis I. Loskovitz, M.D., Memphis
Jack G. Rabinowitz, M.D., Memphis
C. Gaylon Smith, M.D., Memphis

MONTGOMERY COUNTY MEDICAL SOCIETY

Jesse C. Woodall, M.D., Trenton, KY

SMITH COUNTY MEDICAL SOCIETY

Ray A. Olachea, M.D., Celina

WASHINGTON-CARTER-UNICOI COUNTY MEDICAL ASSOCIATION

J. Wayne Battle, Jr., M.D., Johnson City

programs and news of medical societies

Knoxville Academy of Medicine

The Academy met on June 11, 1974 at KAM Headquarters.

The Continuing Medical Education Program was as follows:

Surgery—Ward O. Griffen, Jr., M.D., Professor and Chairman of Albert B. Chandler Medical Center, Department of Surgery, University of Kentucky, Lexington, spoke on, "Surgical Diseases of the Pancreas."

Psychiatry—David Shapiro, Ph.D., Psychoanalyst, Los Angeles, and author of *Neurotic Styles*, spoke on "Aspects of Treatment in Neuroses."

General Practice—William M. Law, M.D., Knoxville, spoke on, "Grave's Disease."

Pediatrics—Bertram R. Henry, M.D., Knoxville, spoke on, "Sleep and Sleep Disorders."

Pathology—Area pathologists met and presented slides of interest of unusual cases.

Marshall County Medical Society

The Society met on June 24, 1974 at Henry Horton Park.

The scientific program consisted of a monograph, movie and self-evaluation test, prepared by MEDCOM, Inc. on the subject of ATHEROSCLEROSIS.

Nashville Academy of Medicine and Davidson County Medical Society

The Academy has completed renovation of their new building which they occupied on July 15, 1974. The Academy Headquarters is located at: 205-23rd Ave., North, Nashville, TN 37203.

national news

THIS MONTH IN WASHINGTON (From Washington Office, AMA)

The humdrum hearings on national health insurance (NHI) before the House Ways and Means Committee got something of a lift when the long-absent chairman, Wilbur D. Mills, (D-Ark.), unexpectedly showed up one Friday in mid-June and announced that whatever bill his

committee approves undoubtedly would not look like any single bill presently under consideration.

This pronouncement from the august chairman immediately gave rise to the belief that closed door talks may be going on among committee members in an effort to hack out a compromise bill that could secure congressional enactment this year.

But the startling lack of interest evident in the House Ways and Means Committee hearings—only two or three members attending each hearing and chairman Mills showing up for just the second time in months—and the indefinite postponement of Senate Finance Committee hearings would seem to say the Congress is not busting its britches to pass a NHI bill this year.

Mills said his own plan (Mills-Kennedy) "doesn't do everything I would like it to do." He said, however, he believes the method of reimbursing physicians under Mills-Kennedy is better than under Medicare. It would eliminate the apparent discrimination between the city physician and the rural physician, Mills believes.

He declared his primary concern is that the poor receive at least as good medical services as the rest of the people. Referring to the compromise with Kennedy, he said, "we were trying to lay before the public a program we thought had a chance to pass." He said he wanted to avoid a bill that "would provide nothing more than catastrophic," which would cover only five percent of the need. The compromise is subject to further compromise, Mills said. Catastrophic is the roof, and "we need the floor and walls along with the roof."

Mills said his intent with the Mills-Kennedy compromise NHI bill was not to exceed the cost of the Administration's "CHIP" plan and to come up with a different method of financing. He said the bill was introduced to present an alternative to the Administration plan for discussion and comment.

Here are selected sample bits of testimony from the many medical-health care oriented organizations who have trooped to Washington to have their say about NHI:

*** The American Public Health Association urged more consumer policy input than provided in any of the major NHI bills before the committee and more preventive services benefits. APHA President C. Arden Miller, M.D. said the major measures for the most part provide insufficient benefits and controls.

*** The American Association of Medical

Clinics supported maintenance of the free enterprise system of health care, and said funding should be from mandated employer plans and general tax funds for the poor and medically indigent.

*** The Colorado Health and Environment Council witness discussed the Colorado Community-Cooperative-Decentralized plan which emphasizes preventive medicine and home health care. The importance of the physician's office as a basic health care facility was stressed.

*** The National Association of Social Workers favored the Kennedy-Griffiths, Health Security Act provisions.

*** The American Academy of Family Physicians told the House Ways and Means Committee any NHI bill must provide that family physicians receive the same fee as other specialists when providing the same service. Family physicians should not be treated as "second class members of the health care delivery team," said James Price, M.D., Academy President.

* * *

Working on a sweeping tax reform bill, the House Ways and Means Committee tentatively has decided to change the tax laws affecting medical deductions and business expenses that would affect consumers and physicians.

Apparently with an eye on the possibility of a national health insurance program being enacted, the Committee voted to remove the present deduction for one-half the amount an individual pays for his health insurance premium (up to \$150), and to increase the present three percent of income floor applicable to medical expenses up to five percent. The one percent of income test for drug costs would be abandoned, with the drug expenses coming under the five percent medical expenses category. Only prescription drugs would be covered.

In addition, the Committee decided to do away generally with the sick pay exclusion under which a tax break is provided employees who are paid while sick beyond a certain length of time.

In the business field, the Committee closed the door on business expenses resulting from attending conventions overseas unless there is an overriding reason for holding the meeting abroad. Not counted would be Puerto Rico, Hawaii, and the American possessions. All cruise ship business expenses would not be acceptable, if the Committee's decision should be enacted by Congress.

* * *

Florida's experience is that the average start-up time for a full service Health Maintenance Organization (HMO) is three to five years, Tampa physician-legislator Richard S. Hodes, M.D., has told the House Ways and Means Committee.

Testifying at the Committee's national health insurance hearings, Dr. Hodes headed a delegation of the National Legislative Conference, an organization of state legislators.

Dr. Hodes outlined Florida's recent activities in health services, noting that unless federal support is continued for such programs as Hill-Burton, Comprehensive Health Planning and Regional Medical Programs, a state's health program might be further snarled by adding national health insurance.

Dr. Hodes is chairman of the Florida House of Representatives Committee on Health and Rehabilitative Services, and heads the Human Resources Task Force of the National Legislative Conference's Inter-governmental Relations Committee.

Florida has had an HMO licensing act for over two years, he noted, but thus far, only five are licensed.

medical news in tennessee

Medical Assistants Install Officers

The newly elected officers of the American Association of Medical Assistants, Tennessee Society are: Mrs. Mary Lou Archer, Johnson City, President; Mrs. Sue Naylor, Henderson, President-Elect; Mrs. Katherine Walton, Kingsport, Vice President; Mrs. Sue McJunkin, Knoxville, Secretary; Mrs. Lois France, Johnson City, Treasurer; Miss Kaye Squibb, Johnson City, Corresponding Secretary (appointed); and Mrs. Martha Thomas, Memphis, Parliamentarian (appointed).

Four Pharmacy Training Centers Due for State

Four pharmacy training centers were established throughout the state on July 1, according to Dr. Edmund Pellegrino, chancellor of the University of Tennessee Medical Units in Memphis.

The U-T College of Pharmacy established the centers in Memphis, Nashville, Knoxville and

Kingsport, Pellegrino said at the annual meeting of the Tennessee Pharmaceutical Association.

This will enable pharmacy students enrolled at Memphis to transfer to one of the centers for their final quarter, he said. An effort will be made to assign students near their hometown, he added.

U-T Psychiatry Gets Chairman

Dr. William L. Webb, psychiatry professor at the University of Pennsylvania in Philadelphia, assumed the position of chairman of the University of Tennessee Department of Psychiatry and superintendent of the Tennessee Psychiatric Hospital and Institute on July 1.

Dr. Webb's appointment was announced by Gov. Winfield Dunn and ends a 10-month search by U-T and the state for the "number one" qualified person nationally.

Dr. Webb, 44, was born in Chattanooga and received his bachelor's from Princeton and his M.D. from Johns Hopkins School of Medicine.

* * *

Anthony S. Jennings, M.D., of the Department of Medicine, Vanderbilt University School of Medicine, Nashville, and Nelson Lamkin, M.D., of the Dept. of Allergy, University of Tennessee College of Medicine, Memphis, have been awarded research project grants by Southern Medical Association (SMA). Drs. Jennings and Lamkin are two of 32 researchers, selected from more than 100 applicants, to receive an SMA research grant this year.

The grant will help fund Dr. Jennings' project, "Cholinergic Modification of Insulin Release *In Vivo*." Dr. Lamkin's project is "Isolation of Active Antigenic Fractions of Bermuda Grass Pollen."

The Research Project Fund, established in 1969, is one of several SMA programs that support the organization's exclusive purpose of developing and fostering scientific medicine. Based in Birmingham, Ala., Southern Medical Association is comprised of 22,000 physicians from 16 states and the District of Columbia.

personal news

DR. WILLIAM C. ALFORD, JR., Nashville, has been granted a fellowship in the American College of Cardiology.

DR. WILLIAM B. BERRY, Chattanooga, was inducted

into the North Chapter of the International Cardiovascular Society recently in Chicago.

DR. WILLIAM R. BISHOP, Chattanooga, has retired as vice president and medical director of Provident Life and Accident Insurance Company after 23 years of service.

DR. FRANCIS H. COLE, Memphis, and DR. GORDON PEERMAN, Nashville, have been appointed to three-year terms on the state Health Facilities Commission by Gov. Winfield Dunn.

DR. HUBERT HILL, Knoxville, has been re-elected to a three-year term on the St. Mary's Memorial Hospital Advisory Board.

DR. RALPH F. MORTON, Kingsport, has been appointed vice president of Indian Path Hospital's medical staff.

DR. JOHN R. REYNOLDS, Chattanooga, has been elected to the executive committee of the Southeastern Society of Plastic and Reconstructive Surgeons.

DR. GARDNER RHEA, JR., Paris, has been named Chief of Staff of Henry County General Hospital.

DR. MARGARET RHINEHART, Spencer, has been selected by the American Biographical Institute to be listed in the Seventh Edition of "personalities of the South."

DR. J. ED STRICKLAND, Chattanooga, has been elected President-elect of the Chattanooga Area Heart Association.

DR. HARRY N. WAGGONER, Johnson City, was recognized recently when Greene Valley Development Center proclaimed a day in his honor.

The following physicians have completed continuing education requirements to retain active membership in the American Academy of Family Physicians: DR. FLOYD DAVIS, Kingsport; DR. JAMES SUTTON HASTIE, Goodlettsville; DR. JAMES B. HAVRON, South Pittsburg; DR. WILLIAM L. HEADRICK, JR., South Pittsburg; DR. ROYCE L. HOLSEY, JR., Elizabethton; DR. MAXWELL E. HUFF, Oneida; DR. H. M. LEEDS, Oneida; DR. FRANK H. LOWRY, JR., Madisonville; DR. TELFORD A. LOWRY, Sweetwater; DR. T. R. PURYEAR, Lebanon; DR. LEE RUSH, JR., Somerville; DR. EUGENE M. RYAN, South Pittsburg; DR. JOHN J. SMITH, Clinton; DR. WARREN Y. SMITH, Kingsport; DR. WILLIAM N. SMITH, New Tazewell; DR. JOHN V. SNODGRASS, JR., Rockwood; and DR. TERRELL B. TANNER, Gatlinburg.

announcements

CALENDAR OF MEETINGS

1974

NATIONAL

Sept. 18-21	American Thyroid Association, Stouffer's Riverfront Inn, St. Louis
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JOURNAL OF THE TENNESSEE MEDICAL ASSOCIATION

Oct. 4-11 American Society of Clinical Pathologists, Sheraton Park, Shoreham, Statler-Hilton and Mayflower Hotels, Washington

Oct. 4-11 College of American Pathologists, Sheraton Park, Shoreham, Statler-Hilton, and Mayflower Hotels, Washington

Oct. 5-12 Western Orthopedic Association, Hilton Honolulu, Honolulu

Oct. 6-8 Emergency Medicine Symposium, Sheraton-Towers Hotel, Orlando, FL

Oct. 14-17 American Academy of Family Physicians, Los Angeles

Oct. 17-19 American Association for the Surgery of Trauma, Homestead, Hot Springs, VA

Oct. 19-24 American Academy of Pediatrics, St. Francis and San Francisco Hilton, San Francisco

Oct. 20-23 American College of Gastroenterology, Americana, Bal Harbour, FL

Oct. 21-25 American College of Surgeons, 60th Annual Clinical Congress, Miami Beach

Oct. 24-27 American Academy of Child Psychiatry, Fairmont Hotel, San Francisco

STATE

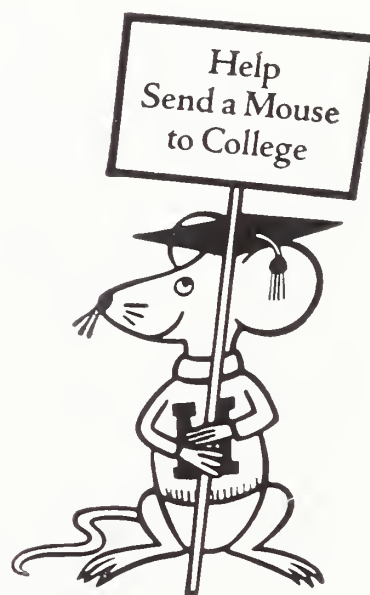
Nov. 2 Tennessee Licensure Examination for Medical Laboratory Personnel. Applications available from: Laboratory Licensing Service, Room 358, Capitol Hill Bldg., Nashville, TN 37219

Oct. 11-12 American College of Physicians, Kentucky/Tennessee Regional Meeting, Ramada Inn, Lexington, KY

* * *

ANSWERS TO THE COOPER REVIEW (from page 677)

1. (1) "c"—Transient cerebral ischemic attack.
(2) "d"—Complete physical exam and further study.
2. a. FALSE. Although papillary muscle dysfunction may sometimes be associated with significant mitral regurgitation, in the majority of patients, mitral regurgitation is insignificant.
b. TRUE
c. FALSE. Mid-systolic clicks are often found in patients with various deformities of the mitral valve leaflets and/or chordae tendinae, but are unusual in patients with papillary muscle dysfunction.
d. TRUE. The murmur of valvular aortic stenosis is often well heard or actually loudest at the apex. Moreover, the murmur of aortic stenosis is usually harsher than that of papillary muscle dysfunction and is associated with a thrill. Amylnitrite inhalation is associated with an increase in the intensity of the murmur of aortic stenosis and a decrease in the intensity of the murmur of papillary muscle dysfunction.
3. (2) Reference: Anderson, WA: *Pathology*, 1971, Page 1418.
4. (4) Westergren sed. rate
The ESR is extremely high in this condition known as polymyalgia. Actually, the other studies may indeed be misleading. For example, if one orders X-rays of the cervical spine, hips and shoulders for a man of his age, most likely the radiology will report some osteoarthritis, and one could easily be misled to believe that the patient's pain is secondary to this diagnosis. Also, the rheumatoid factor test has been shown to be positive in as many as 33% of all elderly people; that is, even normal people without any arthritis. Also, an elevated uric acid may really reflect low doses of analgesics that this patient probably took because of his pain, such as low dose aspirin; hence one could easily be misled into the diagnosis of gout.



Research scientists in university laboratories throughout the country need thousands of mice to help save lives from cancer.

Will you help?

**GIVE TO YOUR
American Cancer Society**

*Fight cancer
with a checkup
and a check.*

THIS SPACE CONTRIBUTED BY THE PUBLISHER



continuing education opportunities

The continuing medical education accreditation program of TMA has full approval by AMA's Council on Medical Education. If the continuing medical education program of your hospital or medical society is accredited by TMA's committee, you may receive for your attendance at its functions Category 1 credit for the AMA Physician's Recognition Award. If you wish information as to how your hospital or society may receive accreditation, write: Director of Continuing Medical Education, Tennessee Medical Association, 112 Louise Avenue, Nashville, Tennessee 37203.

Clinical Training Program For Practicing Physicians

Opportunities for advanced clinical education for physicians in family practice and in various subspecialties have been developed by the School of Medicine and the Division of Continuing Education of Vanderbilt University. The practicing physician, with the guidance of the participating department chairman, can plan an individualized program of one to four weeks to meet recognized needs and interests. The experience will include contact with patients, discussion with clinical and academic faculty, conferences, ward rounds, learning individual procedures, observing new surgical techniques, and access to excellent library resources. Experience in more than one discipline may be included.

Participating Departments and Divisions

Anesthesiology	Bradley E. Smith, M.D.
Medicine	Grant W. Liddle, M.D.
Cardiology	Gottlieb C. Friesinger, III, M.D.
Chest Diseases	James D. Snell, M.D.
Dermatology	Robert N. Buchanan, Jr., M.D.
Endocrinology & Diabetes	Grant W. Liddle, M.D.
Gastroenterology	Steven Schenker, M.D.
Hematology	Robert C. Hartmann, M.D.
Infectious Diseases	Zell A. McGee, M.D.
Renal Diseases	H. Earl Ginn, M.D.
Clinical Pharmacology	John A. Oates, M.D.
Neurology	Gerald M. Fenichel, M.D.
Obstetrics & Gynecology	Paul W. Griffin, M.D.
Pathology	Virgil S. LeQuire, M.D.
Pediatrics	David T. Karzon, M.D.
Psychiatry	Marc H. Hollender, M.D.
Radiology	John R. Amberg, M.D.
Surgery	
General	H. William Scott, Jr., M.D.
Neurological	William F. Meacham, M.D.
Ophthalmology	James H. Elliott, M.D.
Oral	H. David Hall, D.M.D.

Pediatric	James A. O'Neill, M.D.
Plastic	John B. Lynch, M.D.
Thoracic & Cardiac	Harvey W. Bender, M.D.
Urology	Robert K. Rhamy, M.D.
Cancer Chemotherapy	Vernon H. Reynolds, M.D.

ELIGIBILITY: All licensed physicians are eligible.

ADMINISTRATIVE FEE: \$200.00 per week.

CREDIT: American Medical Association Physician's Recognition Award and American Academy of Family Physician's Continuing Education accreditation.

APPLICATION: For further information and application, contact:

Paul E. Slaton, M.D., Director, Continuing Education
305 Medical Arts Building
Nashville, TN 37212 Tel. 615-322-2716

Audio-Cassette Directory Available

Many doctors rely upon audio-cassette tape-recordings for part of their continuing medical education, usually by subscribing to Audio-Digest or Accel or one of the other well-known educational services. There are, however, many other medical programs that are available on audio-cassettes, often without charge.

To aid the physician in locating these little-known but often useful programs, Cassette Information Services of Los Angeles has published its 1974 Directory of Spoken-Voice Audio-Cassettes. Although the services for the health sciences—medicine, nursing, pharmacy, dentistry, hospital administration—comprise a large portion of this 108-page directory, it lists programs in all fields and interests. These range from courses for accountants and management executives to inspirational and entertainment tapes for shut-ins. There is also a large selection of "how-to-do-it" programs, including many on such topics of interest to the physician as hypoglycemia, acupuncture and the Lamaze method of childbirth preparation.

The CIS Directory is not a catalog, but rather a compendium of program titles and subjects that can be found on audio-cassettes, a brief description of each (including price), and from whom the tape or more information may be obtained. The directory itself is available for \$5.00 from Cassette Information Services, Box 17727, Los Angeles, CA 90057.

Free Directory of Cassette Producers

Cassette House, Inc. has just compiled a directory listing over 250 companies producing spoken voice audio cassettes. The producers are listed alphabetically according to the subject matter of the tapes they produce. There are 63 firms listed that produce tapes on medical, dental, nursing, pharmaceutical, health administration and related fields; and 40 on adult education and self-improvement, etc.

For a free copy of this directory write to: Cassette

House, Inc., 1030 E. Northwest Highway, Mount Prospect, IL 60056.

University of Louisville School of Medicine Symposium on Drugs in the Newborn

The Department of Pediatrics, University of Louisville School of Medicine, presents its Eighth Annual Newborn Symposium, November 7 and 8, 1974, to be held at the Health Sciences Center Auditorium, Louisville, Kentucky.

Dr. Virginia Apgar will deliver the 1974 Tenth Annual Louisville Pediatric Lecture on November 6.

For information write: Dr. Billy F. Andrews, 200 East Chestnut Street, Louisville, KY 40202.

American Board of Family Practice Set Exam Date

The American Board of Family Practice announces that it will give its next two-day written certification examination on October 19-20, 1974. It will be held in five centers geographically distributed throughout the United States. Information regarding the examination may be obtained by writing:

Nicholas J. Pisacano, M.D., Secretary
American Board of Family Practice, Inc.
University of Kentucky Medical Center
Annex #2, Room 229
Lexington, KY 40506

PLEASE NOTE: It is necessary for each physician desiring to take the examination to file a completed application with the Board office. Deadline for receipt of application in this office was *June 15, 1974*.

The American College of Physicians Postgraduate Courses for October

CURRENT CONCEPTS OF CLINICAL HEMATOLOGY, University of Virginia Medical School, Charlottesville, VA, Oct. 2-4.

CLINICAL COURSE IN NEPHROLOGY, Royal Victoria Hospital, McGill University, Montreal, P.Q., CAN, Oct. 7-9.

OCCUPATIONAL MEDICINE FOR THE INTERNIST AND FAMILY PHYSICIANS, Americana Hotel, New York, NY, Oct. 8-11.

NEW DEVELOPMENTS IN DIAGNOSIS AND TREATMENT OF DISEASE WITH RADIONUCLIDES, University of Michigan Medical Center, Towsley Center, Ann Arbor, MI, Oct. 21-25.

RHEUMATIC DISEASES, Harvard Medical School and Peter Bent Brigham Hospital, Jimmy Fund Auditorium, Children's Hospital Medical Center, Boston, MA, Oct. 21-25.

VALVULAR HEART DISEASE—University of New Mexico School of Medicine, Albuquerque, NM, Oct. 24-26.

CRISIS MEDICINE, Albany Medical College, Hyatt House, Albany, NY, Oct. 28-31. *Info: Registrar, Postgraduate Courses, ACP, 4200 Pine Street, Philadelphia, PA 19104.*

AMERICAN COLLEGE OF CHEST PHYSICIANS and the AMERICAN LUNG ASSOCIATION OF NASSAU-SUFFOLK presents A POST GRADUATE COURSE

on FLEXIBLE FIBEROPTIC BRONCHOSCOPY

Clinical Experiences

A Practical Workshop

Dates: September 19-20, 1974

Place: Nassau County Medical Center,
East Meadow, N.Y.

Program will include the latest diagnostic and therapeutic experiences in the use of flexible fiberoptic bronchoscopes. Specialists will provide an up-to-date review of fundamental and advanced techniques for the practicing physician.

Practical workshops will be held at participating hospital centers: Long Island Jewish Hillside Medical Center, Nassau County Medical Center, Queens Hospital Center Affiliation of Long Island Jewish Hillside Medical Center, Suffolk Developmental Center and St. Francis Hospital.

Credit: 12 hours credit towards the American Medical Association.

Tuition: ACCP Member	\$100.00
Non-member	125.00
Intern & Resident	55.00

Members and non-members wishing to attend can make reservations by writing to Oscar Cunanan, M.D., "Post Graduate Course," American Lung Association of Nassau-Suffolk, 405 Ostrander Avenue, Riverhead, NY 11901 or American College of Chest Physicians, 112 E. Chestnut Street, Chicago, IL 60611.

FIFTH ANNUAL AUTUMN SYMPOSIUM on PEDIATRIC GASTROENTEROLOGY AND NUTRITION

Friday and Saturday, September 20-21, 1974, at the
University Club of Nashville
Harry L. Greene, M.D., Moderator

Extended discussion periods are planned, and registrants are encouraged to bring particular questions and problems for discussion.

Sponsors: Department of Pediatrics and Division of Continuing Education, Vanderbilt University School of Medicine; Davidson County Pediatric Society; Tennessee Academy of Family Physicians; Children's Hospital at Vanderbilt University.

For further information and registration, contact Vanderbilt Continuing Education, 305 Medical Arts Bldg., Nashville 37212; telephone 615-322-2716.

CONSULTATION ON EUTHANASIA AND HUMAN EXPERIMENTATION

Thursday, October 17, 1974

at the

Center of Continuing Education at Scarritt College
19th Avenue South, Nashville, Tennessee

. . . to bring together medical doctors, clergy, humanists, nurses, social workers, and directors of

nursing homes and retirement homes to explore and analyze critical issues involved in euthanasia and human experimentation . . . to consider and clarify bases for decisions and actions in these areas.

Presented by: The Center of Continuing Education at Scarritt College; Division of Continuing Education, Vanderbilt University School of Medicine; Vanderbilt University Divinity School; Tennessee Academy of Family Physicians.

For further information and registration contact Vanderbilt Continuing Education, 305 Medical Arts Building, Nashville 37212; telephone 615-322-2716. Registration fee of \$10.00 includes luncheon.

SYMPOSIUM ON CLINICAL IMMUNOLOGY AND CANCER

Friday, September 13 and Saturday, September 14, 1974
University Club of Nashville

Presented by: The Tennessee Division, American Cancer Society; the Department of Pathology and the Division of Continuing Education, Vanderbilt University School of Medicine; the Cancer Research and Treatment Center, Vanderbilt University Medical Center; the Nashville Academy of Medicine; the Tennessee Mid-South Regional Medical Program; the Tennessee Academy of Family Physicians.

For further information and registration, contact Vanderbilt Division of Continuing Education, 305 Medical Arts Bldg., Nashville 37212; telephone 615-322-2716. (\$10.00 registration fee waived for students, graduate students, fellows and house staff members)

American College of Gastroenterology COURSE IN POSTGRADUATE GASTROENTEROLOGY

October 24, 25, 26, 1974

The Annual Course in Postgraduate Gastroenterology of the American College of Gastroenterology will again be offered on October 24, 25, 26, 1974, at The Americana, in Bal Harbour, Fla., immediately following the 39th Annual Convention to be held at the same place on October 21, 22, 23, 1974.

This year the Course will be given in cooperation with the University of Miami, by a distinguished faculty from various parts of the United States and abroad.

The Course will be open to members and non-members of the College.

THIS COURSE HAS RECEIVED CATEGORY "A" APPROVAL AND ACCREDITATION OF THE COUNCIL ON MEDICAL EDUCATION OF THE AMERICAN MEDICAL ASSOCIATION.

Write: American College of Gastroenterology
299 Broadway, N.Y. City 10007

American College of Physicians Specialty Courses

PULMONARY DISEASE

For Information and Registration: Registrar, Postgraduate Courses, ACP, 4200 Pine Street, Philadelphia, PA 19104.

"Mechanisms and Management of Clinical Pulmonary Disease" Sept. 30-Oct. 4, 1974, Philadelphia, PA. The

course is held in conjunction with the University of Pennsylvania School of Medicine.

The course is aimed at internists and pulmonary specialists who are responsible for the diagnosis and treatment of respiratory disease. The theories and techniques of general pulmonary care will be covered in the morning sessions; afternoon workshops will stress the practical aspects of clinical pulmonary care. Participant interaction with the faculty in the performance of important diagnostic and therapeutic techniques will be emphasized.

TREATMENT OF GASTROINTESTINAL DISEASE

"Physiologic Approaches to the Diagnosis and Treatment of Gastrointestinal Disease" Sept. 30-Oct. 3, 1974, Philadelphia, PA. The course is held in conjunction with the Gastrointestinal Section of the University of Pennsylvania.

Morning lectures will deal with the pathophysiology, diagnostic approach and therapeutic rationale for major gastrointestinal disease problems. Small group workshops will be conducted on these topics in the afternoon; they will be problem-oriented and deal with actual case histories including x-rays, biopsies and special studies.

EMERGENCY ROOM MEDICINE

"Emergency Room Medicine" Sept. 16-18, 1974, Arlington Heights, IL. The course, held in conjunction with the American College of Surgeons and the Loyola University Stritch School of Medicine, will take place at the Arlington Towers Hotel.

Morning sessions will provide a lecture and concurrent workshops in shock and respiratory care. These are designed to review pathophysiology and discuss current methods of treatment. Lecture and panel discussions will be given in the afternoons. Lectures on the third afternoon will deal with some of the organizational, social and economic problems faced by physicians specializing in emergency room medicine.

ENDOCRINOLOGY AND METABOLISM

"Selected topics in Endocrinology and Metabolism" Sept. 11-13, 1974, Indianapolis, IN. The course, held in conjunction with the Indiana University School of Medicine, will take place at the Indianapolis Hilton.

The course is planned to review selected topics in endocrinology and metabolism from the viewpoint of the practicing internist. It will emphasize clinical relevance and areas in which knowledge is growing most rapidly. Diabetes and thyroid disease will be discussed. Lectures, question periods and panel discussions will be included in the format.

GASTROENTEROLOGY

"Clinical Gastroenterology, 1974" Sept. 16-18, 1974, Rochester, MN. The course, held in conjunction with the Mayo Clinic, will take place at the Clinic.

The main objective of the course is to review newer concepts in the pathogenesis, diagnosis, and treatment of selected gastrointestinal disorders. Whenever possible, topics will be introduced through the presentation of case histories. Emphasis will be placed on topics of current interest in clinical gastroenterology, although

basic mechanisms of disease will be discussed when relevant.

**The Postgraduate Medical Education
Committee of the American College of
Chest Physicians 1974-1975
Postgraduate Programs**

The ACCP in co-sponsorship with leading medical schools and teaching hospitals offer physicians and surgeons a continuing education program specializing in the diagnosis and treatment of heart and lung diseases. Each program will incorporate a variety of educational methods designed to insure student participation in the learning process.

The continuing education program for physicians sponsored by the American College of Chest Physicians has been accredited by the Council on Medical Education of the American Medical Association and is acceptable for credit toward the AMA Physician's Recognition Award.

For further information contact: Bradford W. Claxton, M.Ed., Director of Continuing Education, American College of Chest Physicians, 911 Busse Highway, Park Ridge, Illinois 60068.

1974

September 10-13

"International Symposium on Asthma"

Location: Pacific Grove, California

September 19-21

"Hypoxemic Respiratory Failure: Mechanisms and Management"

Location: Ann Arbor, Michigan

September 19-20

"Flexible Fiberoptic Bronchoscopy—Clinical Experience and Practical Workshop"

Location: East Meadow, Long Island, N.Y.

October 3-5

"Coronary Artery Disease—1974"

Location: New York, New York

October 21-November 1

"A National Seminar for Registered Nurses Working in Critical Care"

Location: Denver, Colorado

November 4

"Critical Care—A Postgraduate Course for Nurses and Physicians"

Location: New Orleans, Louisiana

1975

February 24-27

"Pediatric Cardiopulmonary Problems—Diagnosis and Management—Newborn to Young Adult"

Location: Snowmass, Aspen, Colorado

February 24-28

"The Diagnosis and Treatment of Acute and Chronic Respiratory Failure"

Location: Miami Beach, Florida

March 12-14

"Cardiology for the Practitioner"

Location: Warren, Vermont

April 2-4

"Occupational Pulmonary Diseases"

Location: Morgantown, West Virginia

April 30-May 2

"Pulmonary Disease: The Changing Scene"

Location: Toronto, Canada

June 23-25

"Critical Care—A Postgraduate Course for Nurses and Physicians"

Location: Nashville, Tennessee

* * *

For further information contact:

Bradford W. Claxton, M.Ed.

Director of Continuing Education

**School of Medicine
Medical College of Georgia
Augusta, Georgia**

1974-1975

CONTINUING MEDICAL EDUCATION

HYPERTENSION - CARE

Medical Center of Central Georgia, Macon, Georgia

September 17, 1974

FAMILY PRACTICE SYMPOSIUM

September 23-27, 1974

**ADMINISTRATION AND EDUCATION IN THE
CLINICAL LABORATORY**

October 18-19, 1974

BASIC NEUROLOGY FOR THE PRACTITIONER

February 20-21, 1975

CLINICAL PSYCHIATRY

February 27-28, 1975

MEDICINE AND RELIGION

March 10, 1975

MAKING SURGICAL DECISIONS

March 13-14, 1975

GASTROINTESTINAL DISEASES

The Atlanta Marriott, Atlanta, Georgia

March 20-22, 1975

**INFECTIOUS DISEASES—DIAGNOSIS AND
MANAGEMENT**

April 3-4, 1975

RECENT ADVANCES IN OPHTHALMOLOGY

The Cloister, Sea Island, Georgia

May 19-21, 1975

INTERNAL MEDICINE

Buccaneer Motor Lodge, Jekyll Island, Georgia

June 12-14, 1975

PHYSICIANS CONTINUING EDUCATION SERIES

Dalton, Georgia

January 9, February 13, March 13, and April 3, 1975

PHYSICIANS CONTINUING EDUCATION SERIES

Dublin, Georgia

October 22, and November 26, 1974;

January 28, February 25, and March 25, 1975

Contact: Division of Continuing Education

Medical College of Georgia

Augusta, Georgia 30902

**The Cleveland Clinic
Educational Foundation
Postgraduate Course Schedule
1974-1975**

MEDICAL TECHNOLOGY

September 19, 1974

**CURRENT CONCEPTS IN RENAL DISEASE
AND HYPERTENSION**

October 9 and 10, 1974

**MYOCARDIAL REVASCULARIZATION
SURGERY, 1974**

SELECTION OF PATIENTS, PITFALLS, AND
POSTOPERATIVE RESULTS

October 16 and 17, 1974

GASTROENTEROLOGY: CLINICAL PROBLEMS

November 20 and 21, 1974

PERSPECTIVES IN OPHTHALMOLOGY

December 4 and 5, 1974

CONTROVERSIES IN SURGERY

January 15 and 16, 1975

**MEDICAL PROGRESS FOR THE FAMILY
PHYSICIAN**

January 29 and 30, 1975

SPORTS MEDICINE

February 5 and 6, 1975

PRESSURES IN ANESTHESIOLOGY

February 7, 8, and 9, 1975

SPECIAL TOPICS IN RHEUMATIC DISEASE

February 19 and 20, 1975

BLOOD BANK MANAGEMENT

February 26 and 27, 1975

ADVANCES IN UROLOGY

March 5 and 6, 1975

**MEDICAL PROGRESS AND ITS
RELATIONSHIP TO DENTISTRY**

March 12 and 13, 1975

RECENT PROGRESS IN CLINICAL CANCER

March 19 and 20, 1975

PRACTICAL NEUROLOGY

April 2 and 3, 1975

**REFRESHER SEMINAR IN PEDIATRICS FOR
PEDIATRICIANS AND GENERAL
PRACTITIONERS**

April 9 and 10, 1975

DIAGNOSTIC IMMUNOLOGY

April 23 and 24, 1975

NEW ADVANCES IN DERMATOLOGY

May 15 and 16, 1975

These programs in continuing medical education are accredited by the AMA and are acceptable for Category 1 credit toward the AMA Physician's Recognition Award.

For further information and detailed programs write to: Director of Education

The Cleveland Clinic Educational Foundation
9500 Euclid Avenue, Cleveland, Ohio 44106

**Cook County Graduate School of Medicine
CONTINUING EDUCATION COURSES
FALL 1974 — SPRING 1975**

INTERNAL MEDICINE

ADVANCED CARDIOLOGY

One Week, May 19.

ADVANCES IN MEDICINE

One Week, November 18, April 28.

BASIC ELECTROCARDIOGRAPHY

One Week, October 28, March 3.

BASIC INTERNAL MEDICINE

One Week, November 11, March 17.

FLUIDS & ELECTROLYTES

One Week, September 23.

INTERMEDIATE CARDIOLOGY

Four and a half days, September 23.

INTERMEDIATE ELECTROCARDIOGRAPHY

Two Days, May 8

SEXUALITY FOR PHYSICIANS

One Week, October 21.

SPECIALTY REVIEW COURSES

IN INTERNAL MEDICINE, CERTIFYING:

One Week, May 12, June 2.

SPECIALTY REVIEW COURSES

IN THE SUBSPECIALTIES (One Week):

Hematology, September 30.

Infectious Diseases, September 30.

Nephrology, September 30

Pulmonary, September 9.

Rheumatology, September 9.

SPECIALTY REVIEW COURSE

IN MEDICINE, RECERTIFICATION:

One Week, October 14.

UPPER GASTROINTESTINAL ENDOSCOPY

Two Weeks, Sept. 9, Nov. 4, Jan. 13, Mar. 3.

ORTHOPAEDICS

SPECIALTY REVIEW COURSE

IN ORTHOPAEDICS

One Week, August 25, 1974, Sept. 7, 1975.

**MANAGEMENT OF COMMON FRACTURES
AND DISLOCATIONS**

One Week, October 28.

PSYCHIATRY & NEUROLOGY

NEUROLOGY, PART I, BASIC

One Week, March 17.

NEUROLOGY, PART II, CLINICAL

One Week, September 9.

REVIEW COURSE IN NEUROPATHOLOGY

One Week, March 10.

**PSYCHIATRY FOR THE
MEDICAL PRACTITIONER**

Four Days, October 7.

RECENT ADVANCES IN PSYCHIATRY

One Week, December 2.

SEXUALITY FOR PHYSICIANS

One Week, October 21.

NORMAL DEVELOPMENT—
CHILD ADOLESCENCE
One Week, April 28.

ANESTHESIA

REGIONAL ANESTHESIA
One Week, November 4, March 10.
ELECTROCARDIOGRAPHY FOR
ANESTHESIOLOGISTS
One Week, October 28, March 3.

GENERAL SURGERY

ADVANCED PERIPHERAL VASCULAR SURGERY
One Week, July 21.
ADVANCES IN SURGERY
One Week, May 12
BLOOD VESSELS SURGERY
One Week, November 18, April 14.
DISEASES OF ESOPHAGUS,
STOMACH & DUODENUM
Three Days, September 26.
FIBEROPTIC COLONOSCOPY
Three Days. (1974 dates filled).
January 22, April 23, July 9.
FIBEROPTIC ESOPHAGOGASTRIC ENDOSCOPY
Three Days. (1974 dates filled).
January 27, April 28, July 14.
FLUIDS & ELECTROLYTES
One Week, September 23.
MANAGEMENT OF COMPLICATIONS
IN SURGERY
Four Days, September 16.
MANAGEMENT OF TUMORS OF HEAD & NECK
One Week, June 9.
PRE & POSTOPERATIVE CARE
Four Days, October 29, March 4.
SPECIALTY REVIEW COURSES
IN SURGERY (Two Weeks):
For Part I Applicants: September 30, Nov. 4.
For Part II Applicants: Dec. 2, March 10.
SPECIALTY REVIEW COURSE
IN THORACIC SURGERY
One Week, December 9.
SPECIALTY REVIEW COURSE
IN PEDIATRIC SURGERY
One Week, February 17.
SURGERY OF THE GASTROINTESTINAL TRACT
One Week, April 7.
SURGERY OF TRAUMA
Four Days, December 9, June 2.
SYMPOSIUM ON SHOCK
Two Days, December 13.

PEDIATRICS

GENERAL PEDIATRICS
One Week, November 18.
COMMON GENETIC DISEASES
One Week, May 19.
MANAGEMENT OF PEDIATRIC HEART DISEASE
Three Days, October 30.

NEUROMUSCULAR & LEARNING DISORDERS
IN CHILDREN
One Week, June 9.

SPECIALTY REVIEW COURSE IN PEDIATRICS
One Week, April 7.

ADVANCES IN NEONATOLOGY
Two Days, April 21.

NORMAL DEVELOPMENT—
CHILD ADOLESCENCE
One Week, April 28.

SEXUALITY FOR PHYSICIANS
One Week, October 21.

SPECIALTY REVIEW COURSE
IN PEDIATRIC SURGERY
One Week, February 17.

DERMATOLOGY

BASIC DERMATOLOGY
One Week, October 14.
SPECIALTY REVIEW COURSE
IN DERMATOLOGY
One Week, May 5.

FAMILY PRACTICE

SPECIALTY REVIEW COURSE
FOR FAMILY PRACTICE
Two Weeks August 12, 1974, August 18, 1975
FAMILY PRACTICE REVIEW
One Week, November 4, April 7.
ACUTE CARDIAC CARE
Three Days, December 4.
BASIC DERMATOLOGY
One Week, October 14.
BASIC ELECTROCARDIOGRAPHY
One Week, October 28, March 3.
BASIC GYNECOLOGY
One Week, September 16, April 14.
BASIC INTERNAL MEDICINE
One Week, November 11, March 17.
BASIC OBSTETRICS
One Week, December 2
DIAGNOSTIC RADIOLOGY
One Week, October 7, April 14.
FIBEROPTIC COLONOSCOPY
Three Days (1974 dates filled). January 22,
April 23, July 9.
FLUIDS & ELECTROLYTES
One Week, September 23.
GENERAL PEDIATRICS
One Week, November 18.
INTERMEDIATE ELECTROCARDIOGRAPHY
Two Days, May 8.
MANAGEMENT OF COMMON FRACTURES
AND DISLOCATIONS
One Week, October 28.
NORMAL DEVELOPMENT—CHILDHOOD
ADOLESCENCE
One Week, April 28.
OFFICE GYNECOLOGY
One Week, January 20.

PSYCHIATRY FOR THE
MEDICAL PRACTITIONER
Four Days, October 7.

RECENT ADVANCES IN GERIATRIC MEDICINE
One Day, March 8.

SEXUALITY FOR PHYSICIANS
One Week, October 21.

STATE & NATIONAL BOARD REVIEW COURSES
Basic, Six and a half days.
October 20, April 27.
Clinical, Six Days
October 14, May 5.

UROLOGY FOR FAMILY PRACTITIONERS
Two Days, November 14.

OBSTETRICS AND GYNECOLOGY

ADVANCES IN OBSTETRICS & GYNECOLOGY
One Week, November 18.

BASIC GYNECOLOGY
One Week, September 16, April 14.

BASIC OBSTETRICS
One Week, December 2.

GYNECOLOGICAL LAPAROSCOPY
Three Days, December 11, February 5, May 21.

OFFICE GYNECOLOGY
One Week, January 20.

SEXUALITY FOR PHYSICIANS
One Week, October 21.

SPECIAL REVIEW COURSE
IN GYNECOLOGICAL PATHOLOGY
One Week, October 14.

SPECIALTY REVIEW COURSE
IN OBSTETRICS AND GYNECOLOGY
Two Weeks, October 28, June 2.

RADIOLOGY

DIAGNOSTIC RADIOLOGY
One Week, October 7, April 14.

PEDIATRIC RADIOLOGY
Three Days, September 16.

RADIATION SCIENCE REVIEW
One Week, May 19.

UROLOGY

SPECIALTY REVIEW COURSE IN UROLOGY
Three and a half days, October 2.

SPECIALTY REVIEW IN UROLOGIC
PATHOLOGY & X-RAY
Two and a half days, December 5.

UROLOGY FOR FAMILY PRACTITIONERS
Two Days, November 14.

ADVANCES IN UROLOGY
Two Days, March 3.

NEWER UROLOGIC INSTRUMENTATION
One Day, March 5.

PEDIATRIC UROLOGY
Two Days, March 6.

Informal clinical courses in Dermatology, Fractures
& Orthopaedics, Obstetrics & Gynecology, Pediatrics,

Internal Medicine, Cardiology and Radiology are available by appointment.

707 South Wood Street • Chicago, Illinois 60612
Telephone: (312) 733-2800 & 2803

* * *

The University of Michigan School of Public Health

The University of Michigan School of Public Health is offering a graduate program of study in Mental Retardation and Related Disabilities.

The postgraduate program is a 21-month course leading to an MPH degree and qualification in the field of Mental Retardation. Fees are regular school tuition in the School of Public Health; and terms begin in September and January.

For further information contact:

Arthur W. Fleming, M.D.
The University of Michigan
School of Public Health
Ann Arbor, MI 48104

D-I-A-L A-C-C-E-S-S S-Y-S-T-E-M

WHAT? A valuable cancer education service through toll-free telephone calls that bring the most recent diagnostic and therapeutic information on specific neoplastic disease problems.

WHERE? In the Southern Medical Association area through co-sponsorship of The University of Texas System Cancer Center.

WHEN? Monday-Friday, 8:00 a.m. to 7:00 p.m., CDT; Saturday, 8:00 a.m. to 11:00 a.m., CDT.

For telephone numbers, list of specific topics, and procedures:

Write: Southern Medical Association
2601 Highland Avenue
Birmingham, Alabama 35205

Ask for *DIAL ACCESS SYSTEM* catalogue.

Diabetes-Endocrinology Center At Vanderbilt Offers Tests

As a service to Middle Tennessee's practicing physicians and research scientists, Vanderbilt's Diabetes-Endocrinology Center is now able to provide certain diabetes-related diagnostic assays and tests through its newly established Diabetes Service and Research Support Laboratory, Room A-5203, in the Vanderbilt Medical Center.

Although this laboratory is "sponsored" by the Center, it is not supported by the Center's federal research funds and must, therefore, make modest charges for its services both to the Center's investigators and to physicians and researchers who are not directly affiliated with the Center.

For additional information, please call (615) 322-2197 or, at night, (615) 356-5397.

Annual Otolaryngologic Assembly

The Annual Otolaryngologic Assembly of 1974 will be held October 26 through November 1, 1974, in the

Eye and Ear Infirmary of the University of Illinois Hospital. The Department of Otolaryngology of the Abraham Lincoln School of Medicine, University of Illinois at the Medical Center, offers a condensed basic and clinical program for practicing otolaryngologists under the direction of Emanuel M. Skolnik, M.D., with Burton J. Soboroff, M.D., as co-chairman. This program is designed to bring to specialists current information in medical and surgical otorhinolaryngology.

Interested otolaryngologists should direct their inquiries to the mailing address: OTOLARYNGOLOGY, P.O. Box 6998, Chicago, IL 60680.

Workshop on the Surgery Of Chronic Ear Disease

The Department of Otolaryngology of the University of Illinois, Abraham Lincoln School of Medicine, announces a Workshop on the Surgery of Chronic Ear Disease to be held October 2 through 4, 1974.

The workshop will deal with canal preservation in surgery for cholesteatoma. The technic of canal preservation will be taught by closed circuit surgical color television and temporal bone dissection. Seminars will be held to discuss the difficulties and complications of these technics.

Interested registrants may write directly to the Department of Otolaryngology, University of Illinois Hospital Eye and Ear Infirmary, 1855 West Taylor Street, Chicago, Illinois 60612.

Maternal and Child Health Program

The Maternal and Child Health Program of the University of California School of Public Health at Berkeley announces postgraduate courses of instruction for pediatricians, obstetricians, and other physicians interested in receiving training in the field of Maternal and Child Health. These programs all lead to the degree of Master of Public Health. Tax-exempt Fellowships are available, consisting of support for the trainee and his dependents, tuition and fees.

Program areas at the present time include nine-month programs in Maternal and Child Health, Day Care and the Preschool Child, Health of School-Age Children and Youth, and Maternal Health and Family Planning. Twenty-one month programs in Care of Handicapped Children, Comprehensive Health Care and Perinatology are also available.

Applications are now being accepted for the group entering September, 1975. For information, write to Helen M. Wallace, M.D., School of Public Health, University of California, Berkeley, California 94720.

PAS and MAP Tutorial Sessions*

These two-day sessions teach representatives from *member hospitals* how to do medical audit studies using their own PAS system reports. PSRO health care legislation and the way CPHA resources can help both hospitals and PSROs are presented.

11-12 September 1974

2- 3 October 1974

6- 7 November 1974

11-12 December 1974

PAS and MAP Institutes*

PAS and MAP Institutes are held for *nonmember hospitals and health care organizations* to present a comprehensive review of the various CPHA programs. The Institutes emphasize applications to the PSRO portion of PL 92-603.

5 September 1974

5 December 1974

PAS and MAP Regional Workshops*

Regional workshops, open to both *member and nonmember hospitals and health care organizations*, teach how to do medical audit studies, using sample PAS and MAP reports. CPHA resources to help hospitals and PSROs are discussed.

27 August 1974 —Edmonton, Alberta, Canada

29 August 1974 —Denver, Colorado

26 September 1974—Washington, D.C.

8 October 1974 —Vancouver, British Columbia, Canada

11 October 1974 —Honolulu, Hawaii

12 November 1974—Charlotte, North Carolina

14 November 1974—New Orleans, Louisiana

17 December 1974—Oklahoma City, Oklahoma

Course In Techniques for the Health Record Analyst

The health record analyst's role as an expert in *how* to evaluate the quality of patient care is explored in detail in these intensified sessions. They are open to *member and nonmember hospitals* and health care organizations. The PAS system reports are used to teach the techniques of health record analysis.

16-20 September 1974

7-11 October 1974

11-15 November 1974

16-20 December 1974

Coding and Abstracting Institutes

Open to *all medical record personnel using H-ICDA*, these one-day sessions are designed to review the basic principles of H-ICDA coding. Methods of PAS abstracting are also discussed.

17-19 September 1974—Boston, Massachusetts

8-10 October 1974 —Chicago, Illinois

19-21 November 1974—Los Angeles, California

3- 5 December 1974 —St. Louis, Missouri

*Academic Credit

Fully approved by AMA Council on Continuing Medical Education. Attendance applies toward AMA Physician's Recognition Award (Category 1).

Acceptable for elective hours from American Academy of Family Physicians

All sessions are held at CPHA in Ann Arbor, unless otherwise specified.

For information, write Commission on Professional and Hospital Activities, 1968 Green Road, Ann Arbor, Michigan 48105.

Tennessee Medical Association's
Approved

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National Conference on Advances In Cancer Management

**AMERICAN CANCER SOCIETY—NATIONAL
CANCER INSTITUTE**

PART I TREATMENT AND REHABILITATION

November 25-27, 1974

Waldorf-Astoria Hotel—New York City

PART II

DETECTION AND DIAGNOSIS

May 1-3, 1975

The Denver Hilton—Denver, Colorado

AMERICAN CANCER SOCIETY'S NATIONAL CONFERENCE ON GYNECOLOGIC CANCER

September 18-20, 1975

Marriott Hotel—Philadelphia, Pennsylvania

AMERICAN CANCER SOCIETY—NATIONAL CANCER INSTITUTE

EIGHTH NATIONAL CANCER CONFERENCE

September 20-22, 1976

Regency Hyatt Hotel—Atlanta, Georgia

These professional educational conferences will be acceptable for Credit Hours in Category I for the Physician's Recognition Award of the American Medical Association and for Elective Hours by the American Academy of Family Physicians.

Course in Laryngology And Bronchoesophagology

The Department of Otolaryngology, Abraham Lincoln School of Medicine, University of Illinois and the Eye and Ear Infirmary of the University of Illinois Hospital, will conduct a continuing education course in Laryngology and Bronchoesophagology November 18-23, 1974. The course is limited to twenty physicians and will be under the direction of Paul H. Holinger, M.D.

Interested physicians will please write directly to the Department of Otolaryngology, Eye and Ear Infirmary, 1855 West Taylor Street, Chicago, Illinois 60612.

University of Kentucky College of Medicine

The University of Kentucky College of Medicine will present two identical, comprehensive reviews designed in part to prepare family physicians for the annual ABFM examination scheduled for late October. Approximately 70-74 topics will be presented by University of Kentucky and guest faculty.

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Monday, September 30, and Tuesday, October 1, 1974

22ND ANNUAL ASSEMBLY

September 30, 1974—MONDAY, Read House

- 7:30 a.m. REGISTRATION
- 9:00 a.m. WILLIAM H. MASTERS, M.D., Virginia E. Johnson, St. Louis, Mo., "SEX AND SEXUALITY"
- 10:00 a.m. COFFEE BREAK
Exhibit Visitation
- 10:30 a.m. LOUIS C. LUNDSTROM, General Motors Corp, Warren, Mich., "THE STATUS OF AUTO SAFETY"
(GM ESV exhibit)
- 11:00 a.m. JOSEPH D. GODFREY, M.D., Buffalo, N.Y., "WHAT'S NEW IN SPORTS MEDICINE?"
- 1:00 p.m. LUNCHEON
Continental Room
SPEAKER:
JOSEPH D. GODFREY, M.D., Team Physician, Buffalo Bills, "CONTACT"
- 2:00 p.m. to 4:00 p.m. SYMPOSIUM
"SEXUAL DYSFUNCTION"
WILLIAM H. MASTERS, M.D.
and
VIRGINIA E. JOHNSON
Reproductive Biology Research Foundation, St. Louis, Mo.
(Symposium open to physicians, physician's wives and R.N.'s)

October 1, 1974—TUESDAY, Read House

- 8:00 a.m. REGISTRATION
- 9:00 a.m. WM. E. THORNTON, M.D., NASA, Houston, Tex., "WHAT'S NEW-SKYWARD?"
- 9:30 a.m. C. A. HARVEY, M.D., Naval Submarine Med. Res. Lab., Groton, Conn., "PACKAGED ENVIRONMENTS—MAN'S PROGRESS IN SUB-AQUATIC SURVIVAL"
- 10:00 a.m. COFFEE BREAK
Exhibit Visitation
- 10:30 a.m. PETER C. GAZES, M.D., Charleston, S.C., "WHAT'S NEW IN MEDICAL OFFICE EMERGENCIES?"
- 11:00 a.m. E. C. WONG, Master Acupuncturist, Denver, Colo., "ACUPUNCTURE AS AN ADJUNCT"
- 11:30 a.m. ARTHUR TAUB, M.D., Ph.D., New Haven, Conn., "ACUPUNCTURE—AN HISTORICAL ANALYSIS AND PHYSIOLOGICAL CRITIQUE"
- 1:00 p.m. LUNCHEON
Continental Room
SPEAKER:
W. J. LEWIS, M.D., Chairman, AMPAC Board, Dayton, Ohio, "POLITICAL ACTION—AN EFFECTIVE LONG-RANGE PLAN"
- 2:00 p.m. to 4:00 p.m. SYMPOSIUM
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Usage in pregnancy. (See above **WARNINGS** about use during tooth development.)

Animal studies indicate that tetracyclines cross the placenta and can be toxic to the developing fetus (often related to retardation of skeletal development). Embryotoxicity has also been noted in animals treated early in pregnancy.

Usage in newborns, infants, and children. (See above **WARNINGS** about use during tooth development.)

All tetracyclines form a stable calcium complex in any bone-forming tissue. A decrease in fibula growth rate observed in prematures given oral tetracycline 25 mg/kg every 6 hours was reversible when drug was discontinued.

Tetracyclines are present in milk of lactating women taking tetracyclines.

To avoid excess systemic accumulation and liver toxicity in patients with impaired renal function, reduce usual total dosage and, if therapy is prolonged, consider serum level determinations of drug. The anti-anabolic action of tetracyclines may increase BUN. While not a problem in normal renal function, in patients with significantly impaired function, higher tetracycline serum levels may lead to azotemia, hyperphosphatemia, and acidosis.

Photosensitivity manifested by exaggerated sunburn reaction has occurred with tetracyclines. Patients apt to be exposed to direct sunlight or ultraviolet light should be so advised, and treatment should be discontinued at first evidence of skin erythema.

PRECAUTIONS: If superinfection occurs due to overgrowth of nonsusceptible organisms, including fungi, discontinue antibiotic and start appropriate therapy.

In venereal disease, when coexistent syphilis is suspected, perform darkfield examination before therapy, and serologically test for syphilis monthly for at least four months.

Tetracyclines have been shown to depress plasma prothrombin activity; patients on anticoagulant therapy may require downward adjustment of their anticoagulant dosage.

In long-term therapy, perform periodic organ system evaluations (including blood, renal, hepatic).

Treat all Group A beta-hemolytic streptococcal infections for at least 10 days.

Since bacteriostatic drugs may interfere with the bactericidal action of penicillin, avoid giving tetracycline with penicillin.

ADVERSE REACTIONS: **Gastrointestinal** (oral and parenteral forms): anorexia, nausea, vomiting, diarrhea, glossitis, dysphagia, enterocolitis, inflammatory lesions (with monilial overgrowth) in the anogenital region.

Skin: maculopapular and erythematous rashes; exfoliative dermatitis (uncommon). Photosensitivity is discussed above (See **WARNINGS**).

Renal toxicity: rise in BUN, apparently dose related (See **WARNINGS**).

Hypersensitivity: urticaria, angioneurotic edema, anaphylaxis, anaphylactoid purpura, pericarditis, exacerbation of systemic lupus erythematosus.

Bulging fontanels, reported in young infants after full therapeutic dosage, have disappeared rapidly when drug was discontinued.

Blood: hemolytic anemia, thrombocytopenia, neutropenia, eosinophilia.

Over prolonged periods, tetracyclines have been reported to produce brown-black microscopic discoloration of thyroid glands; no abnormalities of thyroid function studies are known to occur.

USUAL DOSAGE: Adults—600 mg daily, divided into two or four equally spaced doses. More severe infections: an initial dose of 300 mg followed by 150 mg every six hours or 300 mg every 12 hours. Gonorrhea: In uncomplicated gonorrhea, when penicillin is contraindicated, 'Rondomycin' (methacycline HCl) may be used for treating both males and females in the following clinical dosage schedule: 900 mg initially, followed by 300 mg q.i.d. for a total of 5.4 grams.

For treatment of syphilis, when penicillin is contraindicated, a total of 18 to 24 grams of 'Rondomycin' (methacycline HCl) in equally divided doses over a period of 10-15 days should be given. Close follow-up, including laboratory tests, is recommended.

Eaton Agent pneumonia: 900 mg daily for six days.

Children—3 to 6 mg/lb/day divided into two to four equally spaced doses.

Therapy should be continued for at least 24-48 hours after symptoms and fever have subsided.

Concomitant therapy: Antacids containing aluminum, calcium or magnesium impair absorption and are contraindicated. Food and some dairy products also interfere. Give drug one hour before or two hours after meals. Pediatric oral dosage forms should not be given with milk formulas and should be given at least one hour prior to feeding.

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Bibliographic references should not exceed twenty in number documenting key publications. They should appear at the end of the paper. The bibliographic references must conform to the style used in the American Medical Association publications, as,—Alais, FG: What is Known About it, J. Tennessee M. A., 35:132, 1950.

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Acute Care Services for Alcohol Abuse: Perspective from the Tennessee Department of Mental Health

JAMES A. WALLACE, M.D., DAVID H. KNOTT, M.D., Ph.D., ROBERT D. FINK, M.D.,
JAMES D. BEARD, Ph.D.

Recent legislative changes have focused attention on the availability and quality of detoxification services for acute alcohol abuse. Recognizing that detoxification alone does not constitute treatment for alcoholism, the State of Tennessee Department of Mental Health has adopted the position that tantamount to involving the patient effectively in any type of psychosocial rehabilitation is skillful and well-informed medical-psychiatric management of any acute condition resulting from alcohol abuse.

In an attempt to place detoxification services in a proper perspective in the health delivery system, the Department of Mental Health has designated the Alcohol and Drug Clinic at the Tennessee Psychiatric Hospital and Institute as a training-research resource to develop concepts and services throughout the state.

Since 1965, the Alcohol and Drug Clinic at Tennessee Psychiatric Hospital and Institute has been engaged in a longitudinal research program to explore current treatment modalities and to generally improve the delivery of medical services to the acute alcohol abuser. Results of the research program are illustrated by the bibliography attached to this paper.

Salient features of the diagnostic and therapeutic approach to detoxification can be summarized thusly:

For the sake of simplicity, withdrawal from alcohol can be divided into (a) acute withdrawal, (b) subacute withdrawal, and (c) chronic with-

drawal. Although there are many psychophysiologic complications which are overlapping in these three phases of withdrawal, certain specific abnormalities can exist in each phase; appropriate management of these generally help to expedite recovery.

Acute Withdrawal Syndrome

Diagnostic criteria of acute withdrawal from alcohol are better defined than those of subacute and chronic withdrawal; however, it is important to recognize that all forms of acute withdrawal do not necessarily fall into the category of delirium tremens or "D.T.'s". A progressive syndrome of psychomotor agitation, autonomic hyperactivity, hallucinations, intermittent delusions and disorientation and seizure activity all attended with some degree of amnesia constitute the classic picture of delirium tremens. Although all types of acute withdrawal probably belong to the same diagnostic spectrum, there are forms different from that described above, e.g. alcoholic hallucinosis and its variants. Important in the differential diagnosis of acute withdrawal is attention to (a) presence and extent of, or absence of, psychomotor agitation and signs of autonomic hyperactivity, (b) state of sensorium e.g. whether or not patient is disoriented, (c) degree of amnesia in regard to hallucinatory or delusional status, (d) presence and type of hallucinations, (e) temporal relationship of symptomatology and the cessation of alcohol ingestion, and (f) presence of associated medical disorders, especially a systemic infection.

Significant pathophysiology of the acute with-

From the Tennessee Psychiatric Hospital and Institute and The Department of Psychiatry, University of Tennessee College of Medicine, Memphis, Tenn.

drawal syndrome—particularly of the “delirium tremens” variety includes:

1) *Fluid and Electrolyte Imbalance*

If malnutrition, vomiting or diarrhea are superimposed on acute withdrawal, dehydration and electrolyte depletion are not uncommon; however, in many instances the above are not prominent complicating factors. Because alcohol exerts a diuretic effect only as long as the blood alcohol level increases, the result of continued alcohol ingestion can actually be overhydration rather than dehydration. This increase in total body water is isosmotic in nature and in many cases, initial short-term diuretic therapy aids in restoration of fluid and electrolyte balance. Hypokalemia in the acutely withdrawing patient not suffering from protracted vomiting is usually due to the respiratory alkalosis resultant from hyperventilation, the cessation of which usually leads to return of normal extracellular potassium concentrations. Parenteral potassium should be used with caution. Since prolonged alcohol ingestion apparently can effect a decrease in total exchangeable magnesium levels, many persons prefer to use parenteral magnesium sulfate (e.g. 2 cc of 50% solutions I.M. every 3-4 hours for 6-8 doses). Replacement doses of magnesium are safer to use than therapeutic doses. Generally if a patient stops drinking alcohol and begins to eat regularly, total exchangeable magnesium levels will return to normal within 4-5 days.

Another electrolyte abnormality caused by alcohol is an increase in intracellular sodium and decrease in interacellular potassium concentrations, ostensibly resulting in an altered transcellular membrane potential. This effect of alcohol on the transcellular sodium-potassium ratio is shared by many tissues, e.g. central nervous system, myocardium, skeletal-musculature, red blood cells. The careful, yet general, use of anti-convulsants such as diphenylhydantoin can reverse this biochemical abnormality by enhancing the removal of sodium from the cells and aiding in the restoration of normal intracellular potassium concentrations. Speculatively this should improve the function of many physiologic systems.

2) *Abnormalities in Blood Glucose*

Because alcohol tends to deplete glycogen stores and impair gluconeogenesis even when a reasonably nutritious diet is maintained, the blood glucose level of the acutely withdrawing patient

can be very labile. Acute withdrawal is associated with elevated catecholamine levels which can lead to glycogenolysis of the available glycogen stores. A decrease in catecholamine level associated with management of the acute withdrawal syndrome can be accompanied by a rather rapid decline in blood glucose which can, in turn, produce increased agitation, anxiety, tension and even seizure activity. Hypertonic glucose (50 cc of 50% solution) given intravenously is often helpful in transiently stabilizing blood glucose. In addition, this will effect an osmotic diuresis, and often this approach is as aggressive as required in regard to diuresis.

3) *Associated Disorders*

Concomitant infections (especially pulmonary or genito-urinary or both) gastritis, pancreatitis, hepatitis and trauma must be suspected, diagnosed and treated if comprehensive medical management of the patient is to occur. Recognizing the protean gastrointestinal consequences of alcohol abuse and its effect on metabolism, recent investigators advocate the use of vitamin B12 parenteral and folic acid during the acute phase.

The psychopharmacologic approach to the acute withdrawal syndrome depends largely on the type of acute withdrawal present. Acute withdrawal of the “delirium tremens variety” is often handled best by using minor psychotropic agents. The general approach should include the use of a drug which does not produce excessive sedation, does not potentiate the lability of the cardiovascular system (e.g. hypotension and arrhythmias) and which is not significantly synergistic in its depressive effects with alcohol in the event a blood alcohol level is present. In forms of acute withdrawal which fall into the broad category of alcoholic hallucinosis, often the major psychotropic agents (e.g. phenothiazines) are more effective. The difference in the psychopharmacologic management of acute withdrawal is one reason for making a diagnostic distinction between different types of acute withdrawal syndrome.

Total and aggressive medical management of the acutely withdrawing patient often returns the individual to a functional status in a very short period of time, although it often requires days, weeks, and even months to completely treat the pathophysiology of alcohol.

Subacute Withdrawal

The phase of subacute withdrawal from alcohol

is less well-defined diagnostically. It often includes a period of many days after the stage of acute withdrawal. It can be characterized by anorexia, emotional depression, frequent episodes of acute anxiety and agitation, insomnia, gastrointestinal complaints ranging from postprandial epigastric pain to diarrhea. Pathophysiology of this phase includes hepatitis, pancreatitis, gastritis, infection, etc. Recent pilot studies in the Alcoholism Treatment and Research Center of the Tennessee Psychiatric Hospital and Institute suggest that many of these individuals exhibit glucose tolerance curves suggestive of spontaneous hypoglycemia. This can occur after preparation with a standard carbohydrate diet and at a time when hepatic glycogen stores should be normal. The etiology of this hypoglycemic diathesis is enigmatic, possibly it could be due to a combination of hepatic disease and functional hyperinsulinism. A high protein, low carbohydrate diet with between-meal protein feedings often produces marked improvement in the psychophysiologic status of the patient. Drug therapy during this phase can include the appropriate choice of anxiolytic, antidepressive compounds. Often the continuation of diphenylhydantoin therapy in decreasing doses for 2-3 weeks is helpful.

Chronic Withdrawal

The period of chronic withdrawal from alcohol is due primarily to the psychological dependency on the euphoric-producing and tranquilizing properties of alcohol. The patient faced with the emotional trauma of psychosocial conflict previously attenuated by alcohol suffers from anxiety and depression which can often be of an incapacitating nature. It is during this period that the use of psychotherapy, often combined with chemotherapy, is of benefit to the patient. Many find the adjunctive use of Antabuse helpful during this time. One must realize that there is no such thing as the "typical alcoholic" patient, and a comprehensive psychosocial rehabilitative program must be flexible enough to meet the individual needs of the patient. Psychotherapy can be offered on both a group and individual basis and should assume different dimensions in any comprehensive program. Therapy directed by professionally trained persons (physicians, psychologists, social workers, nurses, etc.), by an enlightened clergy, or by lay organizations such as A.A. can provide this flexible therapeutic ambient. By combining proper medical management during the alcohol withdrawal periods with

a psychosocial rehabilitative effort, the alcohol dependent patient can indeed recover.

Alcohol and Drug Services

Having established effective treatment methods at Tennessee Psychiatric Hospital and Institute, the Department of Mental Health is constructing a network of Alcohol and Drug Services in the State hospitals and Community Mental Health Centers under the direction of Dr. William Howse, III. Moving from the pragmatics of treatment procedures to the philosophy of the role of a detoxification service in a comprehensive program for alcohol abusers, the Department of Mental Health offers the following:

1. All State hospitals will establish a detoxification service and attempt to relate effectively to the parochial needs of the indigenous health care system.

2. Community Mental Health Centers will provide necessary after-care services for "detoxified patients."

3. The general thrust of the Tennessee Department of Mental Health in this regard embraces the following concepts:

- a. The delivery of "acute care services" to the alcohol abuser is a responsibility of the general health care system—the Tennessee Mental Health Care system will continue to conduct research and training in this regard and to encourage and assist all facilities in meeting the obvious need.

- b. The Department of Mental Health recognizes that the success of any detoxification program is the existence of the following:

1. Adequate after-care system.

2. Insurance of effective "patient flow."

3. Public education.

4. Continued attempts to deal with the alcohol problem at the prevention level—e.g. early detection, early diagnosis, early treatment if necessary—and encouragement of a cooperative effort between all aspects of the health care system dealing with the alcohol abuser.

The Department of Mental Health endorses unequivocally the concept that skillful and well-informed medical management of acute alcohol problems is an essential precedent to any type of extended therapy. Using Tennessee Psychiatric Hospital and Institute as a training and research base, and developing programs in all State Hospitals and Community Mental Health Centers should encourage the general health delivery sys-

tem to assume a responsible role in combating this nation's number one drug problem—alcohol abuse.

Bibliography

1. Knott, DH, Barlow, G and Beard, JD: Effects of Alcohol Ingestion on the Production of and Response to Experimental Hemorrhagic Stress. *New England Journal of Medicine* 369:292-295, 1963.
2. Beard, JD, Barlow, G and Overman, RR: Body Fluids and Blood Electrolytes in Dogs Subjected to Chronic Ethanol Administration. *Journal of Pharmacology and Experimental Therapeutics* 148:348-355, 1965.
3. Beard, JD and Barboriak, JJ: Plasma Lipids of Dogs During and After Chronic Ethanol Administration. *Proceedings of the Society for Experimental Biology and Medicine* 118:1151-1154, 1965.
4. Knott, DH and Beard, JD: Liver Function in Apparently Healthy Chronic Alcoholic Patients. *American Journal of Medical Sciences* 252(3):260-264, 1966.
5. Beard, JD and Knott, DH: Hematopoietic Response to Experimental Chronic Alcoholism. *American Journal of Medical Sciences* 252:517-525, 1966.
6. Knott, DH and Beard, JD: The Effect of Chronic Ethanol Administration on the Response of the Dog to Repeated Acute Hemorrhages. *The American Journal of the Medical Sciences* 254(2):178-188, 1967.
7. Knott, DH and Beard, JD: A Study of Drugs in the Management of Chronic Alcoholism. *GP* 26(3):118-123, 1967.
8. Knott, DH, Beard, JD and Wallace, JA: Acute Withdrawal From Alcohol. *Post-graduate Medicine* 42(6):A109-A114, 1967.
9. Beard, JD and Knott, DH: Fluid and Electrolyte Balance During Acute Withdrawal in Chronic Alcoholic Patients. *The Journal of the American Medical Association* 204:135-139, 1968.
10. Knott, DH and Beard, JD: A New Approach to the Treatment of Acute Withdrawal From Alcohol. *Psychosomatics* 9:311-313, 1968.
11. Beard, JD and Knott, DH: Clinical Abuses of Alcohol. *The New Physician* 18(3):216-217, 1969.
12. Knott, DH and Beard, JD: A Diuretic Approach to Acute Withdrawal From Alcohol. *Southern Medical Journal* 62(4):485-489, 1969.
13. Knott, DH and Beard, JD: Management of Acute Withdrawal From Alcohol. *Emergency Medicine* 1(4):38-41, 1969.
14. Knott, DH and Beard, JD: Diagnosis and Therapy of Acute Withdrawal From Alcohol. *Current Psychiatric Therapies* 10:145-153, 1970.
15. Beard, JD and Knott, DH: The Effect of Alcohol on Fluid and Electrolyte Metabolism. *The Biology of Alcoholism*, Vol. I, (ed. Kissin, B. and Begleiter, H.), Plenum Press, New York, 1971.
16. Knott, DH, Thomson, MJ and Beard, JD: The Forgotten Addict. *American Family Physician* 3:92-95, 1971.
17. Alcoholism—The Physician's Role in Diagnosis and Treatment, Knott, DH, Beard, JD, Fink, RD, presented as a Scientific Exhibit at the American Academy of Family Practice 23rd Annual Scientific Assembly, October, 1971.
18. Changes in Cardiovascular Activity as a Function of Alcohol Intake. Knott, DH, and Beard, JD, in *The Biology of Alcoholism*, Vol. II, (ed. Kissin, B. and Begleiter, H.), Plenum Press, New York, 1972.
19. Knott, DH, Beard, JD and Fischer, AA: Alcoholism—The Physician's Role in Diagnosis and Treatment. *Family Practice*, (ed. Conn, HF, Rakel, RE, Johnson, TW), W. B. Saunders Company, Philadelphia, Pa., 1973.
20. Knott, DH, Beard, JD and Fink, RD: Alcoholism: Diagnosis and Treatment. *Kansas Medical Society Journal*, January, 1973, Vol. 74(1):1-8.

* * *

The Supplemental Security Income Program

1. Physicians are needed to help the Tennessee Disability Determination Unit evaluate claims for disability benefits by children from families with limited income . . . under the new Federal supplemental security income program.
2. Some of your severely impaired patients who haven't worked long enough to be eligible for Social Security benefits and who have limited income and resources may be eligible under the new Federal supplemental security income program. Information about the new program is available at any Social Security office.
3. The Tennessee State Disability Determination Unit which evaluates disability claims under Social Security for Tennessee residents now perform the same function for the disabled and blind under the new Federal supplemental security income program.
4. Physicians will be offered payment for medical evidence of record used in establishing a patient's claim for disability under the new Federal supplemental security income program.
5. A new Federal supplemental security income program has replaced State programs of aid to the aged, blind and disabled previously administered by State governments. The new Federal payments are made by the Social Security Administration from general revenues to the aged, blind or disabled persons who have limited income and resources.
6. For aged, blind and disabled patients with limited income and resources, a new Federal program began in January 1974: Supplemental Security Income. It replaced State and Local public assistance for the aged, permanently and totally disabled, and the blind. Aid to families with dependent children, general assistance, and the full range of welfare services continue under State direction.

The Effect of Government Payment Of Medical Fees on Medical Practice And Education in Canada

By JOHN R. GUTELIUS M.D.*

Most of my comments are based on personal experience derived through practice in three Canadian provinces, first as a part-time teacher and for the last ten years as a geographical full-time member of the clinical teaching staff of medical schools in Quebec, Saskatchewan and Ontario. This experience as a surgeon has been leavened by a term as Dean of a Canadian Medical School and a year as President of the Association of Canadian Medical Colleges. . . .

How Pertinent Is the Canadian Experience?

One might immediately ask what relevance changes in the medical care system in Canada have to the United States. There are a great number of similarities in both our political and medical systems. Our forms of democracy are different but the essentials of an elected legislature are the same. Regional autonomy is more pronounced in Canada as each of our ten provinces holds the statutory responsibility for health care and education. Since Canadians, like Americans, have a limit to the level of taxation they will accept, and since our Federal government was the first to enter this field, the willingness of the central government to share this tax revenue with the provinces has been the method whereby the provinces

have been persuaded to join a national plan for socialized medicine.

The political influence of socialism has been more evident in Canada. In the United States there is more support for the concept that each individual should have the right to profit by his ability to work hard or rise above the crowd. In Canada more emphasis has been placed on co-operative activities and many people place priority on social measures even ahead of the opportunity for individual development.

Canadian medical practice has been organized in the same way as in the United States. Emphasis has been given to the attainments of the individual practitioner. Medical care has focused on hospitals staffed by a large number of specialists. Office visits have been on an appointment basis and fee-for-service payment has been the method of physician remuneration. Prior to "medicare" the majority of Canadians carried private company health insurance. In summary then, Canada and the United States are similar in their political and social approach and in the system of medical practice.

Fifteen Years of Change

In 1956 the federal government brought forward specific proposals for cost sharing of hospital and diagnostic services. By 1961 all provinces were participants in the free hospitalization program. As a result free hospitalization was available almost a decade before free medical care and this led to an overemphasis on hospital care since the provinces emphasized this area in order to acquire federal cost sharing.

Free hospitalization was intended as the first phase of development of an overall health insurance program. The next steps required additional

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(Portions are reprinted here by permission.)

planning, and with this in mind a Royal Commission on Health Services was established in 1961. Before this report could be completed, Saskatchewan continued its practice of being first in new approaches to the health field by establishing a system of medical care coverage in 1962. Many of you remember that the withdrawal of medical services in that province during July of 1962 attracted world wide attention.

The reports of the Royal Commission¹ were published by 1965 and represent the most significant step in the development of the Canadian program. From its thousands of pages four important points emerge. In addition to supporting the general concept of universal health insurance, the Commission recommended that this insurance program should be government controlled. Private insurance carriers were rejected because a competitive market place approach was not considered appropriate in circumstances where the consumer was not able to select his time of use of the services because of the unpredictability of illness. A second area of importance to medicine was the recommendation that the fee-for-service form of payment continue to be the basis of medical remuneration. Thirdly, the potential demand on manpower which might occur with free medical services was recognized and funds for rapid expansion of education and research facilities were suggested. As a result of this recommendation the Health Resources Fund was established whereby a ten-year program for rebuilding existing clinical teaching facilities or constructing new medical schools and their hospitals was approved. This new program had the effect of adding to the overemphasis on hospital care. It also provided the basis for an increase in Canadian Medical Schools from 12 to 16, as a result of which our medical student output has almost doubled in a little over a decade and is now about 25% greater per capita than in the United States. The report also recognized that health services included much more than medical care and should eventually become linked to anti-poverty measures, the activities of other health disciplines, and revisions in the health care system required to ensure accessibility and quality at a reasonable cost.

Finally, in 1968 the Federal government placed its proposals for medical care coverage before the provinces. As with hospitalization a decade before, the approach was to offer federal

dollars to the extent of about one-half of the cost if the provinces would establish programs which fulfilled certain basic criteria. Some of these have already been reviewed. Others of importance included the incorporation of common minimum benefits, the inclusion of all the population and the provision of portability between provinces. By 1971 this program had been accepted and instituted by all provinces and covered 98% of the population.

The Canadian Program—Medical Practice

Since 1971 all 10 Canadian provinces have participated in our health insurance program. Essential benefits are medical services, diagnostic services and hospitalization costs. Each province adds special programs of local interest, some of which are eligible for federal cost sharing. The dollars required originate from federal and provincial tax revenues and from an annual premium of about \$100. In most provinces the premium is waived for welfare recipients and others with limited resources.

Table I
Physician Payment System
Available Alternatives

1. Government Billed at Schedule Rate.
2. Patient Billed at Schedule Rate.
3. Patient Overbilled with Prior Notification—Patient Reimbursed at Schedule.

Each province has its own system for physician payment within the fee-for-service concept. In most provinces the alternatives listed in Table I are available. These offer a flexibility designed to satisfy the varying attitudes of physicians. The second alternative is also considered by doctors as a safety valve in case of misdirected government decisions in the future. If necessary all doctors could bill the patient directly or even agree to overbill all patients. This latter step would create great difficulty for the system but is probably a false refuge since most governments would simply introduce legislation designed to more directly control physicians' activities. It should be noted that most Canadian doctors now bill the government directly and only rarely "overbill."

This system requires the establishment of a fee schedule. From the beginning two terms have been used. The fee schedule is that decided upon by the provincial medical association. The payment schedule is the list of those amounts which the government agrees to pay for each service.

Charges may be the same but more commonly the payment schedule is less by an overall percentage or changed in selected areas.

You would be concerned, as we were initially, with the effect of this system on patient utilization and physician work load. Utilization of medical services, particularly of lower economic groups, has increased but not to a level which has proven difficult. One of the few properly organized before and after studies was reported by Enterline² in 1973. He studied a large population sample in Montreal before and after Medicare was introduced and amongst the factors reviewed were the number of physician services utilized, and the time of waiting for an office appointment. While office visits increased, the numbers of overall physician contacts did not rise, and the increase in office visits is reflected in the increase in waiting time for an appointment which almost doubled to an average of about 11 days. Hospital and emergency visits together remained unchanged, but this masks the increase in emergency visits which occurred concurrently with a drop in visits to outpatient clinics. The important point to note is that this and other studies do not suggest that the advent of Medicare in Canada led to a major increase in the load on medical practitioners.

That this did not occur probably reflects the willingness of doctors to practice at existing or moderately increased work levels as long as they could recognize rewards through payments for service. We are convinced the transition would not have been so smooth had a salary system been introduced.

During the past fifteen years Canadian medicine has seen great emphasis on hospitalization. This probably resulted from the early introduction of free hospitalization whereby it became advantageous for the patient if he were admitted to a hospital for medical or diagnostic services. Canadian medicine has therefore concentrated on hospital care rather than on a balance between outpatient and inpatient care and has compounded this by a rather long duration of patient stay. At the same time our rates of utilization of medical and surgical services are high and are similar to the United States. As a result we have an expensive combination and now expend one of the highest proportions of national income on health services.³ This emphasis on hospitals has, however, avoided the development of "nursing homes" for private practice as occurred in Great Britain.

Mechanisms for adjustment of fees in future years are always a worry when government controlled plans are introduced. Unilateral government decision has not yet occurred, but this always remains a concern since it can occur whenever negotiations between government and profession break down. In order to avoid this result it would seem wise to involve government participation from the beginning. This creates a situation similar to arbitration in union-management disputes. In the latter situation, however, arbitration usually occurs only after negotiations have broken down. In Ontario we have just completed a very successful experience whereby a joint committee was established from the beginning. No public posturing took place and the first public report was a government announcement that it had approved the increase, in excess of 12% over two years, recommended by the joint committee.

Medical Education

The changes in medical practice noted above have had an effect on the setting for medical education. We have had to adapt to clinical teaching being solely dependent on private patients and their willingness to participate. In large urban centres this has been slower to develop than in smaller communities. In these smaller centres there has been less opportunity for patients to opt between a teaching and non-teaching hospital. This change had begun before Medicare was established as the percentage of patients with private insurance increased. Accommodation to private patient teaching has not been difficult as long as public relations were kept in mind. A sole remaining problem has been the means by which the final year resident in the surgical disciplines obtains independent responsibility. Our experience suggests that this stage is important but not to the degree we once thought. What limitations do exist are being corrected in a few programs, including my own, by establishing the final year of residency as a one-year staff appointment.

Medical schools are under pressure to take steps to educate physicians in such a way as to overcome the problems which government sees as having developed during the last three years. Areas of interest include the desire that education prepare students for an increased use of non-hospital facilities, for a career choice of family or primary care medicine and for a parallel reduction in the interest in specialty training. As long as foreign doctors wish to train in Canada,

the currently available training positions in specialties, which are controlled by the Universities in our country, will continue to be filled by this group as Canadian graduates become diverted to the primary care field.

By 1975 we will graduate enough physicians to more than maintain adequate patient services. If immigration continued, then Canadian graduates would migrate to the U.S., and if this were blocked directly or indirectly while immigration continued, then the fee-for-service system would have to be changed. No government could stand a situation where the current payment system continued and the physician population ratio dropped to 1:400, a stage we would reach about 1984 if we continue present trends.

Areas of Concern

Experience with the first three years of universal health insurance is entirely satisfactory but current concerns of government may lead to changes which are less palatable. The problems which are developing can be divided into several major categories. The first concerns the quality of care. Canada has been used to and intends to continue to have a high standard of medical care. Our Medicare system allows the accumulation of large banks of data which can be analyzed for any disease category, can be studied to identify problems in any region, or can be used to identify medical care problems in an individual medical practice. The concept of professional audit or review through the use of government data is just beginning to develop. In Ontario a professional committee is charged with reviewing quality in medical practice, but to this point has been more involved in factors such as excess volume or unnecessary care rather than studying the quality of care in a fundamental fashion. Nevertheless the data are there and we can expect it to be used increasingly in the future.

It is my personal belief that a problem with regard to motivation and the quality of care is now beginning to appear. I have no data to support this but rather base it on personal observation. I am inclined to believe that the idealism of medicine as well as an effective mechanism for quality control have been removed by Medicare. This problem does not negate the new system but rather suggests that new measures both in medical education and environment of practice are needed. Before Medicare, hard work and exper-

tise were rewarded by recognition and patient demand. Individuals paying for a service were able to take a variety of steps to find out whether the assigned physician or surgeon was the appropriate selection. On our part, each of us contributed to the care of patients for which there was no financial reward. Under Medicare every patient represents a fee and we have no concrete expression of idealism. Patients are less interested in checking out their physician since they are not directly involved in personal expenditure. This problem is not readily identifiable by any study, and yet I am sure it relates to many physician attitudes, particularly of recent graduates. Hopefully new mechanisms will be developed which reaffirm the humanism of our profession.

From the first year of Medicare, cost has been a concern to government. This general area and some of its components is the second major problem and its solutions must be carefully developed lest they destroy many worthwhile aspects of our system. Not only are our [provincial] governments concerned about the cost of all health services and their rate of annual increase, but they particularly focus on medical costs. Doctor incomes were not considered so directly when acquired from patients or insurance companies. However, when they are distributed by the public purse and when annual changes are announced by government they come under more direct scrutiny. From a political point of view, focus is placed not only on incomes but also on the inability of governments to accurately estimate the annual budget when disbursements are to a fee-for-service system. This is an inevitable effect of an arrangement wherein the patient decision determines utilization and where doctors themselves may influence patient decisions.

In an effort to control costs while maintaining or improving medical care, government is beginning to introduce new forms of medical practice remuneration. In Ontario a salary system is now available under certain situations such as group practice in under-doctored areas of urban communities, doctors in remote areas, emergency room physicians and so forth. To this date none of these is obligatory but rather are available to those who find it more convenient. I am not one who believes that a change to salaries is just around the corner in Canada. I believe that our governments have enough sense to recognize the manpower problem it would create and that no other step would be more likely to cause a violent reaction in the medical profession. It is more

likely that the fee-for-service system will be manipulated so as to achieve the cost control objective.

Other areas of cost control are equally important to governments and directly involve medical practice. Hospital bed reductions are occurring throughout Canada and many units are being forced to close certain care components in order to improve regionalization and coordination between hospitals. In our own two teaching hospitals psychiatry, pediatrics, otolaryngology and several other disciplines will soon be isolated to one of the two hospitals.

The third major category of emerging problems is the availability of appropriate medical manpower well-distributed geographically. As a result we are experiencing the development of government control of the number of residency training positions and particularly in specialties. Within a year or two I expect government funding of resident salaries to be strictly established according to these training requirements. The next step would be to control where these new specialists set up practice. This can be easily achieved by closing areas to government billing by all new physicians or by additional physicians in selected disciplines.

Finally, you will be interested in a developing trend in some areas of Canada to establish consumer input into medical systems. Group or community clinics run by consumer groups were established in Canada early in the last decade. These community clinics have been established elsewhere but have not really caught hold even in the Canadian West. This approach continues to be of interest to governments but will not, I feel, become widespread. Of more interest is the recent Quebec law whereby patients become electors of a segment of the hospital board. This has only recently been established but is an intriguing idea which may spread.

Government Steps in the Next Five Years

I hope my analysis to this point has indicated a generally happy experience with socialized medicine in Canada, seen from the point of view of medical practice and medical education. The emerging problems are real and it is of interest to speculate concerning likely events of the next few years. Our governments will take steps to control costs whilst maintaining a quality service and broadening the application of this quality to under-serviced areas. I believe it is possible to predict the programs which are or

will be under consideration in the second half of this decade. Many of these are disagreeable or unacceptable to members of the medical profession. Time will tell which of these are finally implemented and what will be the reaction to each proposal. These forecasts are of particular importance in the United States since many of these are products of government involvement in medical payments. Perhaps they can be avoided by appropriate action when plans are introduced.

The manpower area will be further entered by an increasing development of allied health professions and the adoption of legislation which allows them to perform acts hitherto only permitted by a doctor. In addition, manpower in each province may be further controlled by strings attached to student loans. These loans are provincial matters and hence, like regional distribution, will be oriented towards a provincial base. As a result increasing provincial insularity may be seen across our vast country. Portability of coverage may eventually be more real than professional portability.

Cost control will likely focus on further reduction and regionalization of hospital beds associated with shorter durations of stay and increases in ambulatory facilities. Further debate with regard to placing physicians on salaries will occur and experiments in many areas will develop. I do not believe however that the fee-for-service payment system will be replaced unless the excess doctor ratio is allowed to develop to a degree where the manpower needs under a salary system could be met and where no opportunities existed in the United States.

A related area of concern is the possibility of negotiations with government for changes in the payment schedule being arranged in such a way as to place the responsibility for distribution of a total amount within the profession. This is beginning to appear in at least two provinces and signs of government influence, or influence of the largest sections within the profession are apparent. We should avoid accepting this responsibility lest strife between medical disciplines develop.

Summary

The history of free medical care establishment in Canada has been reviewed. These stages have had effects on the current pattern of medical practice and medical education. To this point government payment of medical fees has, in general, been accepted by the medical profession since our practice system has not suffered a major

CANADIAN MEDICINE/Gutelius

upset. We cannot help but appreciate a situation where patients cared for are no longer under the gun of personal liability for heavy expenses and at the same time medical incomes have risen sharply.

After three years' experience several problems are beginning to emerge. They are governmental but the solutions which may be proposed should be anticipated since many of them would upset the balance of the current program.

Because of the similarity of our countries in political and medical systems, the Canadian experience contains information which should be useful to the United States.

References

1. Royal Commission on Health Services. Ottawa, Queen's Printer, Government of Canada, 1965.
2. Enterline PE, McDonald AD, McDonald JC: The distribution of Medical Services before and after "free" Medical Care—the Quebec Experience. NEJM 289: 1174-1178, 1973.
3. Lee, SS: Health Insurance in Canada. NEJM 290: 713-717, 1974.

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For Ostomy Patients

A brochure prepared to aid the new ostomate return to a full and normal life is being made available without charge, as a professional service by E. R. Squibb & Sons, Inc., to surgeons, family physicians, nurses, and enterostomal therapists.

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It answers many of the commonly asked questions of the new ostomate, including showering and bathing, clothing, diet, exercise and sports, and traveling. The booklet discusses problems that might be encountered with adhesives and appliances, and ways to handle or avoid them.

Copies of the brochure may be obtained by writing Hospital Division, E. R. Squibb & Sons, Inc. P.O. Box 4000, Princeton, N.J. 08540.

* * *

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Anaerobic Bacteriology

In recent years there has been an increasing awareness of the importance of the role played by anaerobic bacteria as the causative agents in clinical infections. This area of infectious disease was long neglected because of the lack of simple and practical methods for isolation of anaerobic bacteria. Recently, however, new methods and techniques have been introduced into the clinical laboratory which make it possible and practical for most clinical laboratories to isolate and properly identify anaerobic bacteria.

The special procedures and techniques used in anaerobic bacteriology include: (1) Special methods of collection of clinical specimens for anaerobic cultures; (2) The use of new and different types of culture media and techniques in the clinical laboratory; (3) The use of special instruments for accurate identification of the anaerobic bacteria.

Of the three above mentioned special methods and techniques, the most important is the proper collection of the specimen. It is of utmost importance that the specimen be collected and transported to the laboratory in a manner such that it is not exposed to oxygen. Even brief exposure to oxygen of some of the anaerobic bacteria will result in their death. Therefore, special care must be taken in the collection and handling of these cultures: the specimens must be transported to the clinical laboratory in special transport systems immediately after collection, and in the laboratory they must be promptly inoculated onto special culture media. The special transport systems consist essentially of test tubes or vials with prereduced (oxygen-free) atmospheres. Such systems are available commercially.

All specimens except throat and vaginal swabs, expectorated sputums, voided urine specimens, and stool specimens, should be cultured for anaerobic bacteria in addition to processing for routine culture and sensitivity. All such specimens should be transported to the clinical laboratory in the special anaerobic transport tubes or vials.

The details of the special types of media and

From the Department of Pathology, Methodist Hospital, Memphis, Tenn.

the special techniques used in anaerobic bacteriology are beyond the scope of this article. However, it should be pointed out that it requires more time to isolate and identify anaerobic bacteria than it does to isolate aerobic bacteria. This means that the clinician cannot expect to get back reports on anaerobic bacteria as early as he gets the routine bacteriology reports. There is usually a delay of 24-48 hours simply because anaerobic bacteria grow more slowly than aerobic bacteria. Similarly, the anaerobic sensitivity report is delayed because the anaerobic sensitivity plates must incubate for 48 hours rather than the 24 hours required for most aerobic sensitivity plates.

There is no longer any doubt that anaerobic bacteria are a relatively common cause of clinically significant infections in man. The frequency of anaerobic bacterial infections, as reported from the clinical laboratories that use special procedures and techniques for the isolation of anaerobic bacteria, is surprisingly large—in a number of reports in the literature, anaerobic bacteria were isolated from as many as one half of the specimens that were culturally positive for any bacteria.

Many clinicians may not be familiar with the nomenclature of anaerobic bacteria. Fortunately, only four groups of organisms account for the majority of anaerobic bacteria isolated from clinical specimens. These are: (1) *Bacteroides* species, which are gram negative anaerobic bacilli; (2) *Clostridium* species, which are spore-forming gram positive anaerobic bacilli; (3) *Peptostreptococcus* and *Peptococcus* species (also referred to as anaerobic streptococci), which are gram-positive anaerobic cocci; (4) *Propionibacterium acnes*, (also referred to as anaerobic diphtheroids), a non-spore-forming gram negative anaerobic bacillus.

In addition to the four groups mentioned above, species of *Fusobacterium*, a gram negative anaerobic bacillus, are important pathogens in cases of lung abscesses.

A special comment should be made about one anaerobic organism—*Bacteroides fragilis*. It is the single most common anaerobic organism isolated from clinical specimens (23 percent of the total anaerobic isolates at Mayo Clinic and 15 percent of the total anaerobic isolates at our hospital). It is also of importance because its antibiotic susceptibility pattern is different from that of most other anaerobic bacteria.

MARTIN D. PALMER, M.D.

Nuclear Cardiology

Part 2 Radiopharmaceuticals that localize in Viable Myocardium

Almost 15 years ago the radioactive alkali metal, K^{42} was used to study myocardial perfusion. Approximately 75% of this isotope leaves the blood stream and enters heart muscle on its first passage through coronary vessels. The rate of extraction of this ion by the heart and its clearance from blood bears a predictable relationship to blood flow. Since K^{42} had many undesirable radiation characteristics that made it unsuitable for clinical use, myocardial perfusion studies with potassium analogues (K^{43} , Cs^{131} , Cs^{129} , Cs^{134m} , Rb^{86} , Rb^{84} , Rb^{81}) were carried out over the ensuing years.

In general, the radioactive analogues of potassium have a gamma energy that is too high for good collimation, require specialized equipment for positron analysis, have a half life that is so short that proximity to a cyclotron is necessary, or present difficulties in radiochemical purification. Nevertheless, recent clinical reports^{1,2,3} suggest that K^{43} , Rb^{81} , and Cs^{129} may be adequate for myocardial scanning.

Since these agents localize in viable myocardium, poorly perfused myocardium would be seen as a "cold spot" on an isotope scan. Cold spot scanning needs for good visualization a relatively high target to non-target ratio of radioactivity. The 8 to 1 ratio obtained with these potassium analogues is only marginally acceptable for heart imaging. If renal failure happens to be present in the patient being studied, the blood clearance of these isotopes would be reduced and in turn the target to non-target ratio would be reduced. The poorly perfused myocardium that appears as a cold spot could be due to transient ischemia, acute irreversible infarction, acute reversible infarction, healing infarction, old scar tissue, or aneurysm. Abnormal perfusion patterns due to non-coronary artery disease would include left ventricular hypertrophy, right ventricular hypertrophy, aneurysm, dilated left ventricle, large breasts, pericardial effusion, pericarditis, and mitral valve disease, which would also make

From the Department of Nuclear Medicine, Park View Hospital, Nashville, Tenn. 37203.

interpretation of coronary disease more difficult. With the difficulty of obtaining a good target to non-target ratio and with the problems of evaluating altered isotope distribution patterns in different physiologic states, one cannot help but wonder about statistical accuracy in myocardial blood flow studies.

Despite these problems, very solid progress continues to be made. Zaret, et al⁴ have shown that anginal patients developed cold areas on a K^{43} heart scan after exercise that was not present before exercise. This would appear to be the only practical, non-invasive method to date of imaging ischemia without infarction.

Fatty acids are also known to localize in myocardium. Early attempts to scan the heart with I^{131} labeled oleic acid did not show as reliable localization as did C^{14} labeled oleic acid. It is now clear that the iodination of the double bond of oleic acid resulted in some stearic hinderance that prevented complete passage of this fatty acid into heart. This problem was solved by the use of a different fatty acid: 9-hexadecenoic acid. When this moiety is labelled with iodine, the isotope attaches to terminal methyl groups resulting in a compound with no stearic hinderance. The hexadecenoic acid with an iodine label localizes in heart as avidly as does K^{43} . Since this can easily be labelled with I^{123} , an isotope with very favorable radiation characteristics, the 16-iodo-9-hexadecenoic acid may well prove to be the radiopharmaceutical of choice for imaging viable myocardium as well as measuring myocardial blood flow and evaluating ischemia without infarction. Other radiopharmaceuticals (Thallium²⁰¹, and N^{13} asparagine) are currently under investigation. Although these developments appear very promising, extensive clinical experience will be needed to determine the strengths and limitations of these myocardial scanning techniques.

ROBERT L. BELL, M.D.
Director

1. Budinger, TF, McRae, J, et al: Myocardial Imaging with ^{81}Rb . *J Nucl Med* 15:480, 1974.

2. Ronhilt, DW, Adolph, RJ, et al: Cesium-129 myocardial scintigraphy to detect myocardial infarction. *Circulation*, 48:1242, 1973.

(continued on page 752)

Peptic Ulcer and Diarrhea

A 48-year-old male was admitted to the hospital because of one month history of diarrhea. For three months he had had anorexia and 30 pound weight loss. The patient had complained of intermittent epigastric and periumbilical dull aching, non-radiating pain for the past two years, not exacerbated or relieved by food or milk ingestion. Self therapy with Alka Seltzer had failed to produce relief of symptoms.



FIG. I

Clinical Data:

Physical examination was unremarkable. Pertinent laboratory data included: serum gastrins—sample #1—1633; sample #2—3,320 with normal less than 5 mEq/hr; maximum acid output 71.3 mEq/hr.

X-ray Findings:

An upper GI series (Fig. I) and small bowel follow-through (Fig. II) showed large gastric folds, megaduodenum, ulcer craters in the duodenal bulb and in the mid descending loop of the duodenum. The small bowel loops demonstrated dilatation, hypersecretion, edematous mucosal folds and on fluoroscopy hypermotility. Celiac

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and superior mesenteric angiography was within normal limits. The skull and sella were normal.

Diagnosis:

Zollinger-Ellison Syndrome.

Discussion:

Most patients with Z-E syndrome present with symptoms of peptic ulcer disease. These ulcers are often intractable. Approximately half of these patients have an accompanying severe diarrhea. Rarely, diarrhea may be the only presenting symptom. The syndrome is due to a gastrin-



FIG. II

secreting, non-beta cell tumor of the pancreas.³ About 60 percent of the adenomas are solitary, 30 percent are multiple adenomas and 10 percent are due to diffuse islet cell hyperplasia. Approximately 75 percent of these adenomas are malignant and present with liver metastasis.² These are, however, of low grade malignancy. Survival for 10 years or more is not uncommon. Most of the adenomas are in the body or tail of the pancreas. Ten percent of the adenomas are found in ectopic pancreatic tissue located in areas such as duodenum, hilus of the spleen and wall of the stomach. These pancreatic adenomas occasionally may be part of the polyendocrinopathy (Wer-

mer's Syndrome) with associated pituitary adenomas, bronchial adenomas, and parathyroid adenomas.

The typical x-ray findings^{1,4} in Z-E syndrome include:

1. Gastric hypersecretion.
2. Large gastric folds.
3. Single or multiple peptic ulcers.
4. Megaduodenum.
5. Prominent and edematous small bowel mucosal folds.
6. Marked increase in intraluminal small bowel fluid.
7. Hypermotility.

Approximately two-thirds of the ulcers are found in the duodenal bulb or gastric antrum—the conventional sites for peptic ulcer disease. One-third are found in the duodenum distal to the bulb or in the jejunum. Ulcers in these latter sites are strongly suggestive of the syndrome. In patients who have had partial gastrectomy for peptic ulcer disease, recurrence of multiple stomal ulcers, often large, is strongly suggestive of Z-E.

The outcome of the syndrome may be fatal

unless the disease is recognized early and adequately managed by total gastrectomy.³ When the classical x-ray findings are seen on an upper GI series their significance must be recognized.

This patient underwent a total gastrectomy and esophago-jejunostomy (Hunt-Lawrence Procedure). The post-operative course was uneventful. Follow-up of this patient for one year did not reveal metastases or signs of polyendocrinopathy.

References

1. Christoforidis, AJ, and Nelson SW: Radiologic Manifestations of Ulcerogenic Tumors of the Pancreas. *JAMA*, 198:511-516, 1966.
2. Ellison, EH, and Wilson, SD: The Zollinger-Ellison Syndrome: Reappraisal and Evaluation of 260 Registered Cases. *Am Surg*, 160:512, 1964.
3. Zollinger, RM and Ellison EH: Primary Peptic Ulceration of the Jejunum Associated With Islet Cell Tumors of the Pancreas. *Am Surg*, 142:709-728, 1955.
4. Zboralske, FF, and Amberg, JR: Detector of Zollinger-Ellison Syndrome: The Radiologist Responsibility. *Am J Roent*, 104:529-543, 1968.

GUIA P. NORTELL, M.D.
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JOSE ZANBILOWICZ, M.D.

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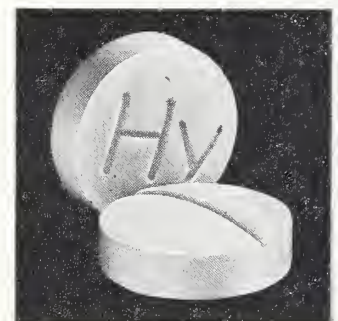
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Primary Aldosteronism

In 1955, Dr. Jerome Conn described for the first time a patient with hypertension and hypokalemia, a syndrome which he suspected was caused by elevated aldosterone production by the adrenal gland. Surgical exploration revealed an adrenal adenoma and post-operatively the patient had complete correction of her hypertension and biochemical abnormalities. Since that time, great advances in the knowledge of the regulation of aldosterone biosynthesis have allowed the diagnosis and treatment of Conn's syndrome, also known as primary aldosteronism (PA), to be made with great reliability.

Clinical Syndrome

The incidence of primary aldosteronism has been variously estimated to involve 0.5% to 8% of the hypertensive population. Early reports suggested that the tumor occurred with greater frequency in the left adrenal, but more recent studies have indicated an equal incidence on each side. The disease is most common in the 30-50 year age group and affects women twice as often as men. The disease has been reported in pregnancy. Signs and symptoms which specifically differentiate PA from other forms of hypertension are few. Blood pressure elevation tends to be mild but occasional cases of malignant hypertension have been described. Headaches are a frequent complaint. In contrast to patients with secondary aldosteronism, edema is never present. The most specific symptoms are related to depletion of body potassium and include fatigue and muscle weakness, polyuria, especially nocturia, and peripheral numbness and tingling. Routine laboratory findings that may be helpful include hypokalemia, alkalosis manifested both in the blood and urine, mild glucose intolerance and U waves in the ECG. Dr. Conn has described a group of patients with normokalemic primary aldosteronism, but similar patients have not been found by other workers.

Pathogenesis and Pathology

The hypertension and biochemical abnormalities can be explained by continued autonomous

From the Hypertension Center, Vanderbilt University Hospital, Nashville, Tenn. 37232.

hypersecretion of aldosterone by an adrenal tumor. Aldosterone acts on the distal renal tubule to promote sodium retention in exchange for increased excretion of potassium and hydrogen ions. The sodium retention leads to increased extracellular fluid volume (ECF) and ultimately an expansion of blood volume and hypertension. The increased ECF decreases the production of renin by the kidney leading to suppressed plasma renin activity (PRA). The majority of tumors are unilateral and are benign, although an occasional carcinoma has been described. Nodular hyperplasia of both adrenals with hyperaldosteronism and suppressed PRA has been described in 20 percent of cases and these patients respond poorly to bilateral adrenalectomy.

Specific Diagnostic Tests

In patients with hypertension and unprovoked hypokalemia, further specific studies to establish the diagnosis of PA should be undertaken. As an outpatient study, 24-hour urine potassium excretion can be measured. If there is potassium wasting ($> 40\text{mEq}$) in the face of low serum potassium, the diagnosis is more likely and the patient should be hospitalized for further studies, off medications if possible. If the patient is severely potassium depleted, the deficiency should be corrected with oral potassium supplements prior to further testing. The patient should be placed on a constant normal sodium diet (100 mEq) and urinary 24-hour collections of electrolytes measured. After the patient has achieved sodium balance, the urinary aldosterone excretion rate (AER) should be measured. In our laboratory, a value $> 17\text{ }\mu\text{g}/24\text{ hours}$ is considered elevated. Two measurements should be obtained as secretion by the tumor may not be constant. PRA should also be measured when the patient is recumbent and after two hours of upright posture. In order to stimulate the renin-angiotensin system further the patient should be switched to a constant low sodium diet (10 mEq) and, after achieving sodium balance, the previous postural maneuvers with determination of supine and upright PRA's should be repeated. The combination of an elevated AGR on a normal sodium intake

suppressed upright PRA on a low sodium intake (less than two to three-fold increase over supine value) is very strong evidence for primary aldosteronism. While awaiting the results of the above tests, many clinicians discharge their patients on 400 Mg of spironolactone per day. This drug is an aldosterone antagonist, and after 3 to 4 weeks, may correct both the hypertension and hypokalemia. If so, this is further strong evidence for an aldosterone-producing tumor.

If the above tests are positive, the patient should have adrenal exploration. Recently, attempts to localize the lesion preoperatively have been carried out by some centers. Adrenal venography may visualize the tumor. Also, assay of adrenal venous blood for aldosterone from the affected side should show a gradient of at least two to three-fold excess as compared to the non-affected side. However, adrenal venography and venous sampling are potentially hazardous and are not recommended unless the department has considerable experience. Very recently scanning of the adrenals following the injection of I^{131} -iodocholesterol, an isotope which is concentrated in cholesterol-utilizing tissues, has been proposed as a non-invasive approach to the localization of adrenal tumors.

Treatment

In most centers, where methods for preoperative localization of the tumor are not available, bilateral exploration of the adrenals is the treatment of choice. Even if a tumor is found in the first gland, the second gland should be examined because 5 to 10 percent of tumors are bilateral. If no visible tumor is seen after exploring both glands, our approach is to remove the left adrenal gland and section it thoroughly in the operating room. If no tumor is identified we then remove half of the right gland and section it. Again if no tumor is seen, the remaining half of the right adrenal is bisected and one half removed and

sectioned. This procedure identifies most tumors and leaves the patient with sufficient adrenal tissue so that postoperatively he will not be Addisonian.

If for some reason, operation is deemed unwise, some patients have been kept normotensive for long periods of time by chronic large dose administration of spironolactone.

Differential Diagnosis

Hypertension and hypokalemia have been associated with other steroids besides aldosterone. Ingestion of large amounts of licorice, oral steroid therapy, congenital adrenal hyperplasia (of the 11-hydroxylase or 17-hydroxylase varieties), Cushing's syndrome (due to adrenal carcinoma or ectopic ACTH production by a non-endocrine malignancy) may all cause hypertension and mimic the biochemical findings of PA. However, in all these causes, AER will be low rather than high, since other steroids are causing the hypertension.

The most important situation to exclude is the patient with hypertension and hypokalemia due to diuretic therapy. Measuring the first 24-hour urine potassium after discontinuing the diuretics should be of use in deciding whether potassium loss is due solely to the diuretic. If so, the kidney will begin to conserve potassium and there should be very little potassium (< 20 mEq) in the urine. If primary aldosteronism is present, no conservation will occur.

Summary

1. Hypertension and hypokalemia should suggest the possibility of primary aldosteronism.
2. Confirm the diagnosis by finding elevated aldosterone excretion on a normal sodium diet and suppressed PRA on a low sodium diet after 2 hours in the upright posture.
3. Cure the condition by removing the aldosterone-producing adenoma.

—JON H. LEVINE, M.D.

* * *

Nuclear Medicine

(continued from page 748)

3. Botti, RE, Mac Intyre, WJ, Pritchard, WH: Identification of Ischemic area of Left Ventricle by Visualization of ^{43}K Myocardial Deposition. *Circulation*, 47: 486, 1973.

4. Zarte, BL, Strauss, HW, et al: Non invasive Regional Myocardial Perfusion with Radioactive Potassium: Study of Patients at Rest, with Exercise, and during Angina Pectoris. *New Eng J Med* 288:809, 1973.

5. Robinson, GD, Jr, Poe, ND, et al: 16-iodo-9-Hexadecenoic Acid; High Specific Activity Preparation and Myocardial Specificity. *J Nucl Med* 15:528, 1974.



from the tennessee department of mental health

Commitment procedures for Tennessee's alcoholics and drug abusers who have gone contra the law have been amended by the 88th General Assembly. These offenders are brought before either a court who has jurisdiction over misdemeanors or a judge of a criminal court (if charged with a felony). If the charge is public drunkenness, the offender may serve his sentence in the workhouse or jail or he may elect to submit himself to a treatment resource for rehabilitative treatment and receive a suspended sentence.

If the charge is for first offense possession of a controlled substance, the offender is given his choice of serving his time in the workhouse or jail or having his sentence suspended and accepting treatment in a mental health facility. For a second offense of possessing a controlled substance, an offender will be charged with a misdemeanor and sentenced from one to two years. Again he may elect treatment, and the time a second-time offender spends in a mental health facility may count against his sentence. For a third or subsequent offense, the individual is charged with a felony and is sentenced from two to three years. At this time it is within the discretion of the court to permit the offender to have treatment for his mental illness in a mental health hospital or through a comprehensive mental health center. A person who is charged with distribution or manufacturing of a controlled substance is considered a felon and would necessarily be turned over to the Commissioner of Correction but could be turned over to the Commissioner of Mental Health if he is in need of mental health treatment.

The Controlled Substance Chapter, Title 52, Chapter 1409, has been amended. Of particular interest is the change in the definition of marijuana by removing from the statutory meaning the word "sativa" which is a particular classification and leaves the statute now to include all species of the cannabis family. There are additions to the lists of hallucinogenic substance. The opium, opiate, salt compound, derivative, or preparation therefrom are listed by generic names. There is a section added on the amphetamines and additional listings are made of the controlled substance on drugs which tend to have a stimu-

lating effect on the central nervous system as well as drugs which have a depressant effect on the central nervous system.

The cost of treatment was given due consideration, and the Public Welfare Chapter (Tennessee Code Annotated, Section 14-1907) was changed to permit financial aid from federal assistance programs to be paid for individuals under the age of twenty-one in a public institution for tuberculosis or mental diseases. Previously State law covered only persons over sixty-five.

In further protection of the financial needs of the mentally ill the General Assembly provided that all individual, franchise, blanket or group policies written or renewed after July 1, 1974, in Tennessee shall include coverage for expenses incurred for treatment for psychiatric disorders, mental or nervous conditions, alcoholism, or drug dependence, or the medical complications of mental illness or mental retardation. There are to be only two exceptions: individual policy renewal, or a policy or plan which specifically excludes or reduces the above-mentioned benefits.

The 88th session of the General Assembly amended Tennessee Code Annotated, Section 56-3324 which previously restricted insurance companies from failing to pay benefits to persons hospitalized in tax supported institutions. The amendment provides that "such an institution charges patients for the same service in the absence of insurance."

The legislators passed another act which provides that no policy of sickness or accident coverage issued after July 1, 1974, can deny coverage to an insured under care and treatment for mental illness with such denial being based upon the fact that the facility does not have surgical facilities if the mental health or mental retardation facility does, in fact, have a contract with an accredited facility to perform any required surgical care.

Further dealing with insurance, another law provided that a licensed clinical psychologist (licensed in accordance with provisions of Chapter 11, Title 63, Tennessee Code Annotated) shall be entitled to be reimbursed for performing services within his scope which are covered by insurance policies just as if the services were performed by a psychiatrist.

History

The patient is a 12-year-old boy who four months before admission had a heart murmur noted on routine physical examination. He has been in excellent health his entire life. He is the product of normal gestation and delivery with normal growth and development. He has excellent exercise tolerance.

Physical examination reveals a slightly asthenic, twelve-year-old boy who appears to be in good health,

whose pertinent findings were limited to the cardiovascular system. The arterial pulses were normal in all four extremities and in the carotid arteries. The jugular venous pulses were normal in contour and amplitude with A and V waves being visualized at the base of the neck at 15° elevation. On palpation of the precordium there was a left peristernal heave, and there were no palpable thrills. A pulmonic closure shock was palpable. On auscultation the second sound at the base of the heart was widely split and fixed with an accentuated pulmonic closure sound. There was a grade II/VI somewhat scratchy systolic ejection type murmur best heard in the pulmonic area. An S₃ was audible at the apex. Liver and spleen were not palpable, and there was no clubbing, cyanosis or edema. The following electrocardiogram was obtained. (Fig. 1)

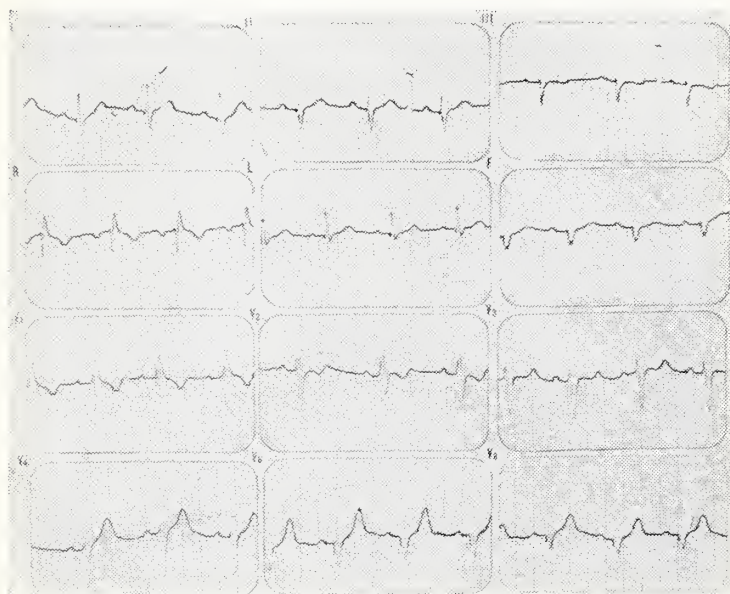


FIG. 1

Discussion

Electrocardiogram shows a sinus rhythm at a rate of 75/minute. The PR interval is normal at .20 seconds. In the frontal plane there is a very small Q wave in standard lead I. The terminal forces are rightward causing the terminal S wave in standard lead I. The early initial forces causing a small Q wave in I are rightward and then very

quickly move leftward and inferiorly causing the R wave in II. The forces then rotate counter-clockwise causing a deep S wave in II, III and AVF which appears prior to the S wave in standard lead I. This "counter-clockwise loop" is commonly seen in anterior hemiblock. However, the rightward terminal forces in this case suggest right ventricular enlargement. This impression is supported by the presence of an initial R and a prominent terminal R' in V₁ and V₂. T inversion V₂ is somewhat unusual at age twelve and often accompanies increased right heart pressures.

Cardiac catheterization revealed an atrial septal defect with a 2.8:1 left to right shunt. Peak systolic pressures in the pulmonary artery were 43 mm Hg. The pulmonary vasculature resistances at this flow are within normal limits, however. The electrocardiogram suggested an ostium primum defect with the anterior hemiblock type of counter-clockwise loop and at the time of surgical closure the patient was indeed noted to have an ostium primum defect with a cleft in the anterior leaflet of the mitral valve.

Final diagnosis: Atrial septal defect, primum type.

Harry L. Page, Jr., M.D.
W. Barton Campbell, M.D.
Co-Directors

From the Department of Cardiology, St. Thomas Hospital, Nashville, Tennessee.

* * *



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self-evaluation quiz

"THE COOPER REVIEW"

(Answers found beginning on page 780)

1. Pulmonary edema usually occurs when the pulmonary capillary pressure exceeds:
A. 15mm/Hg.
B. 25mm/Hg.
C. 35mm/Hg.
D. 50mm/Hg.
2. Reflux esophagitis and peptic stricture are sometimes seen after prolonged nasogastric intubation, following gallbladder surgery. TRUE or FALSE
3. For patients with reflux esophagitis and heartburn, anticholinergics are an excellent way of controlling symptoms. TRUE or FALSE
4. Fatty foods and cigarettes are detrimental to patients with heartburn. TRUE or FALSE
5. Please choose of the following rheumatic complaints, which are often associated with the list of diseases on the left.

Disease States

1. Acromegaly
2. Polycythemia vera
3. Hyperparathyroidism
4. Hypothyroidism

Diseases

- A. Gout
- B. Pseudogout
- C. Bilateral carpal tunnel syndrome
- D. Premature osteoarthritis

Reactions to Local Anesthetics

Serious reactions to local anesthetics—though relatively rare—are usually extremely alarming for both patient and physician because of their generally unanticipated presentation and the consequent lack of organization in their management.

Reactions occurring may be either of the hypersensitivity or allergic variety, or they may be toxic reactions due to the attainment of high plasma levels of the drug. It is not realized that hypersensitivity reactions are quite rare but do occur occasionally in association with the ester linked anesthetics (procaine-tetracaine, etc); most commonly to procaine. Hypersensitivity to the amide linked anesthetics (lidocaine, prilocaine, mepivacaine, etc.) is so rare as to be negligible for all practical considerations. Such phrases as "allergic to the caine drugs" are meaningless because of the different chemical groupings of these drugs.

The management of allergic reactions varies with the severity of the reaction but usually includes the administration of anti-histamines—the use of epinephrine in more severe cases, and general supportive measures designed to maintain circulation and respiration.

Systemic toxic effects of local anesthetics are related to the attained plasma levels. The latter depends upon a number of factors, some of the more important being the dose administered in a given period, the rate of absorption from the injected site, and the rate of metabolism or plasma removal of the drug.

(continued on page 758)

Published by the Department of Medical Education, The Cooper Hospital, Camden, New Jersey, Sherman Garrison, M.D., Director. Produced by the medical staff of The Cooper Hospital, "The Cooper Review" is a review of clinical observations and contemporary problems encountered by the staff.



A Review of the Medicaid Program

In October, 1969, the State of Tennessee entered into a contract with the U.S. Department of Health, Education and Welfare to administer a Medicaid program for the citizens of Tennessee. The administrative responsibility for this program was assigned to the Tennessee Department of Public Health through its Division of Medicaid.

Since that time, the Medicaid Program has grown and changed in numerous ways, but the basic objective remains the same—to promote better health among the residents of the State by providing a more comprehensive medical assistance program for the needy. The success the program has had in meeting this objective would not have been possible without the cooperation and participation of physicians.

Two key words in this definition are “comprehensive” and “needy.” The precise meanings of these words, as implemented in the Medicaid Program, have changed over the years and are likely to continue to evolve. For instance, when the Medicaid Program began, there were approximately 157,000 people eligible and 35,000 recipients of service per month. At the present time, this figure is about 300,000 eligibles and 111,000 recipients per month.

What is the reason for the big jump in just five years? Basically, it is because the definition of “needy,” i.e., the eligibility requirements have changed over the years. When the program began, the people eligible for Medicaid assistance were those who were eligible for cash assistance through any of the four categorically needy welfare programs: Old Age Assistance (OAA), Aid to Families with Dependent Children (AFDC), Aid to the Blind (AB), and Aid to the Disabled (AD). Another factor which influenced the number of people who were eligible was that eligibility was determined by the Tennessee Department of Public Welfare according to standards set by the state within Federal guidelines.

This is no longer true, except for the AFDC category. Since January of this year (1974), eligibility for the adult categories has been determined by the Social Security Administration using federal standards of eligibility for Supplemental Security Income instead of the state

standards previously used by the Department of Public Welfare. In general, the federal standards are somewhat more lenient than the state standards.

Another change in eligibility requirements which has affected the Medicaid Program greatly is the addition of the Medically Needy Program, implemented effective April 1, 1974. The principle behind the Medically Needy Program is to assist people who would not qualify for cash assistance under the traditional requirements but who are medically needy. Persons in this program consist of those who would meet all the Welfare requirements in one of the four categories, except income. Eligibility for the Medically Needy Program and AFDC is determined by the Tennessee Department of Public Welfare, in accordance with the state eligibility standards that were in effect in December, 1973.

In addition, children in foster homes or private institutions which are under the supervision of the Department of Public Welfare are covered. Children in child care institutions or voluntary agencies for whom a public agency or private non-profit agency is financially responsible are also eligible, if they meet the income standards defined for the medically needy coverage group.

Children under age 21 in licensed private maternity homes or subsidized adoptive homes for whom the Department of Public Welfare or licensed, non-profit agency is fully or partially financially responsible are also covered, if they meet the income standards. It is not necessary for either of these coverage groups to meet the categorical eligibility requirements other than age, living arrangements and income.

Services

As the meaning of the word “needy” continues to evolve, so do the implications of the word “comprehensive” in regard to the medical services that are covered by the Medicaid Program. Currently, the following services are covered each fiscal year (July 1-June 30):

Inpatient Hospital

General—20 days.

Psychiatric—No limit for persons 65 or older.

Tuberculosis—No limit for persons 65 or older.

Blood—First 3 pints.

Outpatient Hospital—30 visits.

Mental Health Centers—As required.

Independent Lab and X-Ray—30 occasions.

Skilled Nursing Home Care—Not to exceed 90 days initially. May be extended upon medical certification and prior approval.

Intermediate Care—As medically necessary.

Ambulance Transportation—Emergency only.

Physicians—As required.

Home Health Care—60 visits.

Legend Drugs and Insulin—Up to a 30 day supply with 2 refills.

Screening, Diagnosis and Treatment—Persons under 21 in AFDC families.

Christian Science Sanatoria—10 days.

Community Health Clinics—As needed.

Family Planning Services—As needed.

Medicaid Supplements Medicare

Part A—Pays the deductible. Pays co-insurance for extended care. (80 days)

Part B—Pays the deductible. Pays the co-insurance. Pays the monthly premium "Buy-in."

Recent changes have included a major expansion of the Screening, Diagnosis and Treatment Program and the addition of Family Planning Services. Since July 1, 1973, the SD&T Program expanded to cover AFDC children to age 21. Previously, it covered these children up to age 6. Family Planning Services were also added on July 1, 1973. These services are available for anyone eligible for Medicaid who can be considered sexually active. The Medicaid Policy Review Committee, which is the final authority on Medicaid policy, also recently approved the use of Medicaid funds to pay for abortions for Medicaid patients.

The expansion of the Screening, Diagnosis and Treatment Program can be noted with pride. Tennessee is one of the leaders in the nation in this area of medical service, because it is one of the few states that actually exceeded its own goal for SD&T. The effort put into the program by local health departments which do the actual screening, and by the Department of Public Welfare, which sets up the appointments, is reflected in the following figures. In the 1972-73 fiscal year, the number of children screened was 5,007. In the following year, however, this number had jumped to 54,752, exceeding the goal of 45,000 screenings by 9,752.

The screening services include—history, physical inspection, developmental assessment, vision and hearing tests, microhematocrit and sickle cell tests, tuberculin skin test, urine test, as well as assessment of immunization status and provision of needed immunization. (Expansion 6-21) Children found to have conditions requiring

further care are referred to the appropriate providers of service.

Administrative Changes

The years of experience in administering the Medicaid Program have led to improved administrative procedures being adopted by the Medicaid Division and by the two fiscal agents which process claims, Blue Cross/Blue Shield of Tennessee and the Equitable Life Assurance Society.

In 1973, for instance, the schedule of payments to physicians was raised by adopting the 1971 profile compiled by the fiscal agents. Previously, Medicaid payments had been based on the 1968 profile. At the present time, Medicaid pays the cost of the physician's bill up to the 75th percentile of the 1971 profile.

While the Department of Public Health has been working to bring the physicians' reimbursement more in line with today's economy, the fiscal agents have worked for speedier and more efficient processing of claims. At the present time, Equitable Life Assurance Society, the fiscal agent which handles claims from physicians, pays physicians once a month.

Another administrative procedure which has become increasingly sophisticated is the surveillance program. One of Medicaid's more effective methods of controlling over-utilization of drugs is the "lock-in" system, under which the Medicaid investigators automatically receive quarterly surveillance reports identifying each recipient whose Medicaid utilization exceeds a standard deviation of one. These are examined to see if any appear to be "spending" more money than necessary. These recipients are then watched for the next two quarters and if it still appears that an excessive amount of money is being "spent," they are then placed in the "lock-in" system. With this system, the Medicaid recipient's card is stamped "special," and he is "locked-in" to one doctor and one pharmacist. This requirement is to prevent the patient from "doctor hopping" and "pharmacy hopping" to obtain more medicine than he needs. The number of visits to the doctor is not limited, but the visits must be to the same doctor during the month. In this way, Medicaid relies on the professional judgment of the physician to determine what medication the patient needs and to prevent the patient from obtaining prescriptions for too many drugs.

As the staff has grown and gained experience in administering the Medicaid Program, adminis-

trative procedures have been improved, though there have been problems as the program grew and changed. The most recent difficulty has been the results of the change in the eligibility determination of the three adult categories from the Department of Public Welfare to the Social Security Administration. Some persons who were eligible for Medicaid were not getting on the computer tape prepared by the Social Security Administration. To handle the problem, a manual system has been worked out to see that these people receive their Medicaid cards each month. Any person who is receiving an SSI check who has not received his Medicaid card should notify his local Social Security Office. This action will activate the manual system to correct the situation.

Frank L. Jones, Jr., Director of the Division of Medicaid, is optimistic about the problem being corrected. He has been with Medicaid since its beginnings when the division had a total staff of five people and had to start from scratch to implement the program. Since then the central staff

has grown from five to thirty people and the expenditures for Medicaid services have increased from \$18 million in 1969-70 to \$73 million for fiscal year 1972-73. For the first 11 months of fiscal year 1973-74 (the latest figures available) \$83 million had been spent for services. Basically, the federal share for the major Medicaid programs is 72.28 percent and the state furnishes the remaining funds (27.72 percent). (A few of the smaller programs have a different ratio, such as 90 percent federal, 10 percent state for Family Planning).

Jones sees Medicaid as "an insurance program for the needy." He points out that it brings new federal money into the state and pays some health care providers that might not get paid otherwise. Despite its problems, Jones thinks the advantages of Medicaid are obvious: "Where else can you invest one dollar and get almost three more in return?"

Note: Medicaid coverage of Community Health Clinic services will be discussed in a separate article.

* * *

Quiz

(continued from page 755)

Most reactions to local anesthetics—are in fact toxic reactions and arise commonly from inadvertent intravenous injection or from simple overdosage due to ignorance or neglect of the toxic doses in a given circumstance.

Whereas the most dramatic manifestation of toxicity is the onset of seizures, the most dangerous aspects are the ensuing respiratory and circulatory depression caused directly by the drugs' action on the heart and brain stem.

Toxic reactions can usually be avoided by careful injection, and a strict regime with regard to the total dose used. Premedication with diazepam (valium) may be of some value in raising the toxic threshold.

When toxic manifestations do occur they can usually be satisfactorily managed with small doses of short acting barbiturates (or valium) given intravenously in combination with adequate respiratory and circulatory support. The former may require artificial ventilation and the latter fluids and vaso-pressors with both alpha and beta receptor stimulating properties.

If the seizures cannot be satisfactorily controlled in this way the use of a short acting muscle relaxant may be indicated but this should only be used if the facilities and skill for endotracheal intubation and ventilation are present.

For all these reasons it is clear the procedures under local anesthesia requiring anything more than minimal doses of local anesthetics should only be carried out where full facilities for cardiopulmonary resuscitation are present.

**from the
executive
director**

J. E. BALLENTINE

MEDICAL DIGEST

NEWS OF INTEREST TO DOCTORS IN TENNESSEE

RESUME OF JULY 14 TMA BOARD MEETING

TMA AT WORK—TRUSTEES ACT ON 42 ITEMS OF BUSINESS . . . The TMA Trustees held the third quarter meeting in Nashville on July 14. Principal actions taken were:

- A thorough review of division and committee activities.
- Appointment of Division Coordinators.
- Reviewed Health Project Contest and recommended change in format.
- Reviewed TMA's press relations—and considered in detail the activities and purpose of the Committee on Rehabilitation.
- Appointed a Fuel Allocation Committee to work with the Tennessee Energy Office to assure adequate supplies of gasoline for physicians.
- Filled TMA committee vacancies, and considered a report on conflicts in AMA membership.
- Recommended two physicians to the United States Pharmacopeial Convention to serve on appropriate committees in advising on the standards, strength, quality and purity of the drugs for the U.S.P.'s Committee on Revision.
- Approved major repairs on the roof of the Tennessee Medical Association's headquarters office building
- Approved action to co-sponsor a Symposium on Confidentiality with the State Mental Health Department and the Tennessee Bar Association.
- Directed the TMA President to present testimony before a General Assembly committee of the effects of marihuana on health and law enforcement . . . Considered a policy matter dealing with advertising in the TMA Journal.
- Directed a letter be written to the Regional Director for Medicare Intermediary dealing with Resolution 11-74 concerning physician charges for services when the amount is less than the allowable charge.
- Approved April 12-15 as the dates for the 1978 Annual Meeting to be held in Knoxville . . . Submitted the names of physicians to be recommended to the Governor to serve on State Electrolysis Examining Board . . . Recommended names to be sent to the Governor for appointment on the Crippled Children's Advisory Committee of the State, and the Medicaid Medical Advisory Committee.
- Approved the second quarter Financial Statement . . . Directed appropriate legislation or amendment to the present statute to formulate legislation relative to physicians serving on Medical Audit Committees.

- Acted to support the position of AMA concerning the American Physical Therapy Association's procedures being performed by certain technicians where they are not under the direct supervision of a physician . . . Heard a lengthy report and discussion on the Med-Help program developed by the Memphis Medical Society.
- Studied three bills now in Congress dealing with funding of RMP's, and opposed these bills which have the effect of making Medicine a public utility type entity. Letters of protest on these bills were sent to the congressional sponsor with copies to all members of Tennessee Congressional Delegation . . . Discussed idea of conducting a seminar with representatives of the news media.
- Adopted action concerning diagnostic procedures performed by a hospital resident.

* * *

PHYSICIANS ASSIGNED TO NEEDY COMMUNITIES . . . The National Health Service Corps has announced that four physicians have been assigned to communities in Tennessee as of last July 1. There is a new physician in Petros, two in Parsons, and one in Surgoinsville, Tennessee. NHSC plans to fill the remaining physician vacancies in Tennessee by July, 1975.

* * *

URGENT!! REGARDING PHYSICIAN'S NARCOTICS REGISTRATION . . . Some physicians are failing to complete properly their narcotics license renewal applications, and as a result, are probably writing prescriptions that cannot be lawfully filled . . . The Federal Drug Enforcement Administration (formerly Bureau of Narcotics and Dangerous Drugs) informs that all physicians are not checking on application for registration form, for all schedules of drugs for which they write prescriptions. Prescription for drugs in a non-registered schedule cannot lawfully be filled . . . Be certain to complete your registration renewal accurately and fully . . . If you have overlooked schedules for which you prescribe drugs, write to the Drug Enforcement Administration, Registration Branch, P. O. Box 28083, Central Station, Washington, D. C. 20005, to inform the Registration Branch that you need to file an amended registration . . . You will receive a renewal notice 60 days prior to the expiration date of your current registration, according to the DEA.

* * *

FROM CONGRESSMAN ROBIN BEARD'S WASHINGTON REPORT . . . Did you know that—during the last twenty years. Social Security taxes have increased 800%, more than ten times the cost of living increase for the same time . . . Over the same period, the taxpayer's bill for Social-Security grew from \$5 billion to \$40 billion annually, the average monthly benefit check from \$55 to \$140—less than one-third the tax rise and never above the poverty level . . . It is now possible to pay as much as \$14,602 in Social Security taxes and not be eligible for any retirement benefits at all—whether you work or not after sixty-five . . . More than half of all American taxpayers pay more to the Social Security Administration than they pay in income taxes—and the percentage is growing.

**public
service**



COMMUNICATIONS • LEGISLATION

HADLEY WILLIAMS, ASSISTANT EXECUTIVE DIRECTOR

THE TENNESSEE FOUNDATION FOR MEDICAL CARE, INC. is sponsoring PSRO informational workshops in order to educate those individuals who will be involved with the implementation of PSRO. Attendance to the one-day workshops will be open to Physicians, Administrators, Hospital Board Members, Medical Records Personnel, and other Health Care Personnel. The six PSRO workshops will be held at the following locations:

<u>DATE OF WORKSHOP</u>	<u>CITY</u>	<u>MEETING PLACE/Location</u>
September 19 Thursday	Johnson City	HOLIDAY INN, 2406 N. Roan Street on Bristol, Kingsport Highway
September 26 Thursday	Knoxville	HOLIDAY INN-CENTRAL, Off I-40, Dale Avenue at 17th Street
October 10 Thursday	Chattanooga	HOLIDAY INN-I-124, 401 W. 9th Street I-124, 9th Street & Golden Gateway Exit
October 17 Thursday	Nashville	SHERATON HOTEL, 920 Broadway Downtown
October 24 Thursday	Fulton, Ky.	HOLIDAY INN, Jackson Purchase Parkway & Holiday Lane
October 31 Thursday	Jackson	HOLIDAY INN, I-40 & US 45 Bypass

PSRO WORKSHOP SCHEDULE

8:30 A.M. Registration
9:00 A.M. Workshop to commence
12:00 Noon Luncheon Buffet
3:00 P.M. Workshop to conclude

Registration is necessary and should be accomplished at least two weeks prior to selected workshop. To arrange for registration, call the TFMC office at (615) 385-2444 or write, "WORKSHOPS", Tennessee Foundation for Medical Care, Suite 200, Executive Square, 2400 Crestmoor Road, Nashville, Tennessee 37215.

* * *

12TH RURAL HEALTH CONFERENCE SET . . . The twelfth annual Rural Health Conference will take place October 2, 1974 at Columbia State Community College in Columbia, Tennessee. Co-sponsored by TMA, Tennessee Farm Bureau Federation and the University of Tennessee Agricultural Extension Service, the meeting is expected to attract more than 200 participants. Dr. Thornton E. Bryan of Memphis will discuss "Innovations in Family Practice Training and Delivery of Medical Care". Other topics include Emergency Medical Services, Health Insurance, Hazards of Farm and Home Chemicals, Physical Activity and a Panel Discussion on Health Careers. Dr. Houston Lowry of Madisonville is chairman of the TMA Rural Health Committee.

in Brief

A summary of AMA, medical & health news

American Medical Association / 535 North Dearborn Street / Chicago, Illinois 60610 / Phone (312) 751-6000 / TWX 910-221-0300

Some conclusions on acupuncture were reached by the AMA's delegation to China after its recent visit. The delegation said that acupuncture analgesia merits controlled experimental study and that clinical studies of its applicability might best be carried out through cooperative ventures between accomplished Chinese practitioners and licensed American physicians, dentists and research scientists. Acupuncture therapy should be regarded as the practice of medicine in an experimental phase, permissible only in qualified investigational settings, the delegation said. It added that every effort should be made to guard against the conversion of acupuncture into a new kind of quackery in the Western world.

More than \$20 million in PSRO contracts was awarded to 119 medical care foundations and associations in 38 states, Puerto Rico and the District of Columbia by HEW. Eleven conditionally operational PSROs were awarded more than \$13 million; 91 organizations nationwide received planning contracts worth more than \$5.5 million; and 13 state-level foundations and medical societies intending to function as statewide PSRO support centers received about \$2 million. \$2.8 million in contracts for training programs and technical work went to the AMA, American Assn. of Foundations for Medical Care, American Nurses Assn. and American Podiatry Assn.

16,689 physicians received their first license in 1973. The figure represents the largest increase recorded in any one year, 15% higher than the 14,476 reported in 1972. There were 366,379 physicians in the U.S., including 326,933 licensed physicians, at the end of 1973.

Mark your calendar for three upcoming AMA meetings in Chicago . . . The 34th Annual Congress on Occupational Health, Sept. 9-10, at the Marriott Motor Hotel. Direct inquiries to Dept. of Environmental, Public and Occupational Health, AMA Headquarters . . . The 4th Biennial Conference on Continuing Medical Education for state medical associations and specialty societies, Oct. 2-3, at the Drake Hotel. Contact Dept. of Continuing Medical Education, AMA Headquarters . . . The 2nd National Congress on Health Manpower, Oct. 31-Nov. 2, at the Palmer House. Contact Dept. of Health Manpower, AMA Headquarters.

Ethical and legal questions concerning physicians' participation in weight-reduction "clinics" that advertise the use of human chorionic gonadotropin injections are being raised. The widely advertised "fat clinics" which use HCG, a substance made from the urine of pregnant women, are offering physicians large sums of money to affiliate with them. The AMA and the FDA have both said that HCG has not been proven useful in the treatment of obesity. In two states, California and Michigan, either the state medical society or the attorney general has warned physicians of the ethical questions involved in affiliating with such a clinic.

The AMA has signed two contracts with HEW. An \$111,000 grant from HEW's National Center for Health Statistics will finance a two-year research study by the AMA's Center for Health Services Research and Development to develop and refine new measures of the supply of physicians' services. The other contract, for \$995,635, is for the development of model sets of criteria for screening appropriateness, necessity and quality of medical services in hospitals.

A national center for health education is being developed by the National Health Council under a \$258,816 contract with HEW. The project, recommended by the President's Committee on Health Education, will seek to stimulate, coordinate and evaluate health education programs.

Available from AMA: "Health Care Functions and Responsibilities of Physicians' Assistants," a report of a survey of 300 PAs employed in health care settings during the summer of 1973. Write Dept. of Health Manpower, AMA Headquarters . . . Two pamphlets, "Helping Hands, Financing a Health Career," (OP-417) and "Helping Hands, The Challenge of Medicine: (OP-418), are designed to provide guidance for high school and college students interested in careers in medicine. To order, 30¢ each for 1-99 copies; 20¢ each for 100-499; 19¢ each for 500-999 and 18¢ each for 1,000 or more, write Order Dept., AMA Headquarters . . . The second edition of AMA's *Self Assessment Programs for Physicians*, listing programs sponsored by all major specialty societies on 21 topics. OP-414 is \$1 each for 1-10 copies, 90¢ each for 11-49 and 80¢ each for 50 or more. Write Order Dept., AMA Headquarters.

Is a Source of Information?

Yes, with certain reservations. The average sales representative has a great fund of information about the drug products he is responsible for. He is usually able to answer most questions fully and intelligently. He can also supply copies of articles that contain a great deal of information. Here, he must exercise some caution. I usually accept most of the statements and opinions that I find in the papers and studies which come from the larger teaching facilities. I do so without saying that a physician should also rely on other sources for his information on pharmacology.

Training of Sales Representatives

Ideally, a candidate for the position as a sales representative of a pharmaceutical company should be a graduate pharmacist who has a questioning mind. I don't think this is possible in every case, so it becomes the responsibility

of the pharmaceutical company to train these individuals comprehensively. It is of very great importance that the detail man's knowledge of the product he represents be constantly reviewed as well as updated. This phase of the sales representative's education should be a major responsibility of the medical department of the pharmaceutical company.

I am certain that most of these companies take special care to give their detail men a great deal of information about the products they produce—information about indications, contraindications, side effects and precautions. Yet, although most of the detail men are well informed, some, unfortunately, are not. It might be helpful if sales representatives were reassessed every few years to determine whether or not they are able to fulfill their important function. Incidentally, I feel the same way about periodic assessments of everyone

in the health care field, whether they be general practitioners, surgeons or salesmen.

Value of Sampling

I personally am in favor of limited sampling. I do not use sampling in order to perform clinical testing of a drug. I feel that drug testing should rightly be left to the pharmacology researcher and to the large teaching institutions where such testing can be done in a controlled environment.

I do not use samples as a "starter dose" for my patients. I do, however, find samples of drugs to be of value in that they permit me to see what the particular medication looks like. I get to see the various forms of the particular medication at first hand, and if it is in a liquid form I take the time to taste it. In that way I am able to give my patients more complete information about the particular medications that I prescribe for them.

city they are indeed useful; particularly in the fact that they disseminate broadly based educational material and serve not just as "pushers" of their drugs.

Other Side of the Coin

Obviously, the pharmaceutical companies are not producing all educational material as a labor of love—they are in the business of selling products for profit. In this regard, ambitious and improperly motivated sales representative can have a negative influence on the practicing physician, both by presenting a one-sided picture of his product, and by encouraging the physician to depend too heavily on drugs for his total therapy. In many ways, the salesman has often distorted objective reality and undermined his potential role as an educator.

Industry Responsibility

Since the detail man must be an information resource as well as a representative of his particular pharmaceutical company, he should be carefully selected and

thoroughly trained. That training, perforce, must be an ongoing one. There must be a continuing battle within and with the pharmaceutical industry for high quality not only in the selection and training of its sales representatives, but also in the development of all of its promotional and educational material.

The industry must be ready to accept constructive as well as corrective criticism from experts in the field and consumer spokesmen, and be willing to accept independent peer review. The better educated and prepared the salesman is, the more medically accurate his materials, the better off the pharmaceutical industry, health professionals and the public—i.e., the patients—will be.

Physician Responsibility

The practicing physician is in constant need of up-dated information on therapeutics, including drugs. He should and does make use of drug information and answers to specific questions supplied by the pharmaceutical representative. However, that informa-

tion must not be his main source of continuing education. The practitioner must keep up with what is current by making use of scientific journals, refresher courses, and information received at scientific meetings.

The practicing physician not only has the right, but has the responsibility to demand that the pharmaceutical company and its representatives supply a high level of valid and useful information. I feel certain that if such a high level is demanded by the physician as well as the public, this demand will be met by an alert and concerned pharmaceutical industry.

From my experience, my impression is that sectors of the pharmaceutical industry are indeed ethical. I challenge the industry as a whole to live up to that word in its finest sense.

*Pharmaceutical
Manufacturers Association
1155 Fifteenth Street, N.W.
Washington, D.C. 20005*





E. KENT CARTER

President's page

Super Market Medicine

For the last several sessions of the TMA House of Delegates, there have been some distinct resolutions endorsing the principle of "separate billing." These have all been endorsed or approved by your House of Delegates.

During the recent session of the House in April, 1974 there was considerable discussion as to the definition of "separate billing," especially in relation to hospital based physicians. Separate billing simply means charging the patient for professional services with your fee clearly identified as a professional fee.

It appeared from some of the discussion in the House of Delegates that several physicians think that separate billing is fine for the other fellow, "but don't bother me." It was pointed out that it would be impossible for residents covering emergency rooms to bill separately, although their services are needed. This can be handled by permitting the staff of the hospital, using residents for coverage to form a corporation, do the billing in their corporate name, and allow the corporation to pay the residents in question.

The other argument against "separate billing" was presented by physicians who read EKG's, ECG's, etc., on a declining fee schedule based on volume, the fee stipulated by a hospital contract. I will admit the declining fee schedule, or super-market type of medicine, would make separate billing impossible. It not only makes it impossible, but it seems to me that somewhere, some patient is paying too much or too little for this work. I doubt if the hospital has any sliding scale of charges for the patients. They are sliding up their profits at the expense of the physician.

If the first interpretation of say 1,000 interpretations was worth \$5, so was the last, or if the last was worth only \$1, then the first was worth only \$1.

Further intrusions of Government into the regulation of hospital fees, as it regulates in utilities, will make it much more important that the physician disassociate himself from any hospital fee schedule. We had better mend our fences, pull together and support "separate billing" for our own good.

Forget super market medicine.

Yours truly,

President

journal

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SEPTEMBER, 1974

editorials

On Polishing Up the Old Armor

From time to time it becomes desirable, even critical, for each one of us to reassess his position in the total scheme of things. As Shakespeare has Hamlet say, "The time is out of joint," and unless we look at the whole picture, corporately, as "Medicine," it is easy to forget what we're here for. What with Watergate and the concurrent (or antecedent) decline in morals, PSRO, HMO, NHI, Senator Kennedy's pronouncements, and what have you, it becomes increasingly difficult to keep our minds on our business, which is, or should be, the care of the sick and the treatment and prevention of disease.

If you were asked why you went into medicine,

and what satisfactions you derive from it, you might have some trouble formulating off-hand an adequate answer, and, at least insofar as the second part is concerned, it would no doubt vary with age, specialty, geography, and general circumstances. But mixed in there somewhere, brightly or dimly seen, was a knight in shining armor off to rescue, not mankind generally, but individuals, from the jaws of death. Come on, now—admit it. You may have forgotten, but you know it was there—or I hope it was.

The danger to us—and to our patients—is in losing the vision. At that point in life medical practice becomes hum-drum, and doctors (and it isn't confined to us) wish they would go on and turn 65 or could make enough money to retire. These feelings are getting a lot of help today and will no doubt get more as time goes on and the bureaucracy impinges more and more on our practice.

John R. Gutelius, M.D., Professor of Surgery at Queen's University, Kingston, Canada, and past president of the Association of Canadian Medical Colleges, has given us a glimpse, as a sort of "Ghost of Christmas Future," into what may be in store for us should we follow in the steps of our neighbor to the north—a direction in which we appear to be heading with increasing momentum. Because it appeared prophetic for us, I carry it as a special item, printed on page 741 of this issue.

One paragraph stopped me as I heard—and later read—the address.

Dr. Gutelius says,

"It is my personal belief that a problem with regard to motivation and the quality of care is now beginning to appear. I have no data to support this but rather base it on personal observation. I am inclined to believe that the idealism of medicine as well as an effective mechanism for quality control have been removed by Medicare. This problem does not negate the new system but rather suggests that new measures both in medical education and environment of practice are needed. Before Medicare, hard work and expertise were rewarded by recognition and patient demand. Individuals paying for a service were able to take a variety of steps to find out whether the assigned physician or surgeon was the appropriate selection. On our part, each of us contributed to the care of patients for which there was no financial reward. Under Medicare every patient rep-

resents a fee and we have no concrete expression of idealism. Patients are less interested in checking out their physician since they are not directly involved in personal expenditure. This problem is not readily identifiable by any study, and yet I am sure it relates to many physician attitudes, particularly of recent graduates. Hopefully new mechanisms will be developed which reaffirm the humanism of our profession."

Well, there it is in a nutshell. Peer review in Canada has had to do mostly with utilization and not with quality of care. In spite of lip service in this country to qualify, we also see economics as the prime moving force. When NHI comes, we will be, affectively, in Canada's boat. How will it be with you, doctor, when every patient represents a fee and when medicine is practiced by "laundry lists"? And that's assuming we continue to give service for the "usual and customary" fee. With what Senator Kennedy and Congressman Mills have in mind for payment under NHI, it will be even worse.

You had better dust off that vision and polish up the old armor, because if you think you are being sorely tried now, just wait. But the patients are still there, sick and distressed—even with NHI, they will be just as sick and just as distressed as ever. The only difference between a rich sick and distressed patient and a poor sick and distressed patient is money. Quite a difference? Reassess your position in the total scheme of things, then answer the question: Why did you go into medicine, and what satisfaction do you get out of it?

J.B.T.

And In Seeing . . .

The admonition "Don't just look—see," implies that there is something worth looking at. Certainly God has blessed this country with a multitude of scenic wonders. We take our vacation in still unspoiled, unpolluted areas—if we can find them; it's getting harder and harder. But perhaps this admonition should apply equally, if not even preferentially, when there is *nothing* worth seeing, in the spoiled, polluted areas, so that we can possibly, by seeing, be moved to fight against, or at least not to add to, what is being done to our world in the name of progress—in short, to become a part of the answer instead of a part of the problem.

I certainly do not wish anything I say here to

be misconstrued as implying that I am against progress. I much prefer, for example, to see lobar pneumonia treated with antibiotics than with the lonely vigil through the crisis. Much has been done in the name of progress which ultimately turns to ashes in our mouth, a fulfillment of the ancient admonition, "without vision the people perish." The geologists warned, for example, that the structure of the mountain above Rockwood would not support the segment of I-40 projected for it, but the engineers went ahead. Millions of dollars and several years later, I-40 is still sliding down the mountainside.

It turns out that in conservation seemingly everyone is for it in everybody else's domain. Few people want to look very closely at possible long term ill effects from their own pet project, particularly when there is money to be made. Conservationists are written off as obstructionists. Nowhere is all this more apparent than in our coastal areas. Though less apparent to us in Tennessee, and perhaps less pressing, than the scalping of our mountains, it nevertheless affects even us in ways other than the loss of scenic grandeur.

A parenthetical word here on the effects of loss of scenic grandeur. It is obvious that with our increasing population, we must give more serious thought to land use, and we cannot perhaps afford to leave undeveloped all the areas we would like. After all, pavement and solid buildings look beautiful to people who spend most of their lives in the open fighting the elements. While most of us go to the mountains or the beach or the lake on weekends or vacations, they come to town. To function properly in our work we need changes in scenery, not necessarily far away from home, but not in polluted streams and scalped mountains—and not bumper to bumper always, or in tent tenements.

The Georgia islands are generally being maintained with vision, as are a few other coastal areas. These islands are called the "barrier islands," and one, Cumberland island, was recently designated a national seashore area. But a little further down the coast, extending through the Keys, begins a solid strip of wall-to-wall condominiums, which are perhaps beautiful to the developers, but to few others. After about two o'clock in the afternoon the beach is in the shade. Breakwaters have been built out into the water, ostensibly to stem the force of the tide, but in reality to make "private" beaches. The eddying

of the water around these breakwaters has gradually washed away the beach, so that at Palm Beach, for example, where there was once a nice broad beach at "The Breakers" hotel, there is now virtually no beach at all. So great is the amount of untreated sewage being dumped into the ocean in South Florida that the bacterial count is often three times higher than the count considered hazardous. Sludge and fecal matter choke the Miami River to a depth of 12 feet.

The seacoast is not static. It is a living organism. Dunes, beach, and plant and animal occupants exist in a precise balance to prevent wind and water erosion. There are always two rows of dunes with an intervening valley; the first row must be left inviolate, and the vegetation protected. When the dunes are destroyed, as in the course of construction, this balance is destroyed, and the beach eventually disappears.

The major portion of man's habitation, recreation, industry, and wastes has been concentrated on our seacoasts, where 75 percent of our people live and work, and pursuit of short-term gain has led to an intense competition for space and resource use. The Department of the Interior reports "severe to moderate modification" of 73 percent of our 53,677 mile shoreline. Conservation of resources has been ignored, with resulting damage not only to esthetic considerations, but also to wildlife and fisheries. Worse, this has led to failure to protect an extremely important biological resource: our coastal marshes and estuaries, which are perhaps our most fertile and biologically productive areas. According to Edward Daly, chief of Connecticut's wetlands division, an acre of marshland produces more protein than an acre of corn, and it acts as a sponge, which in rough weather, high water, or hurricane, reduces flood damage. Many of the human uses to which they are subjected, such as industrial use, navigation, mineral and petroleum extraction, power generation, waste disposal, and even recreational uses, are incompatible with their continued biological (not to mention scenic) usefulness. Between 1950 and 1969, almost 650,000 acres were lost to dredging and filling, and more than 1,400,000 acres designated as shellfish areas are polluted. One chemical company alone daily dumps 690,000 pounds of sulfuric acid into the Savannah River, occasionally causing it to boil and seethe.

Brunswick, the seaport of the Georgia islands area, is becoming heavily industrialized, so that while there is on a huge live oak beside the marsh

a plaque commemorating it as the site of the writing of "The Marshes of Glynn" by Sidney Lanier, much of those same marshes are now dry and the marsh grass is a dirty gray-brown instead of its former lush green. Water birds are few and far between, and I suspect few marsh hens are now flying to their nests there.

As much as we would like to blame government agencies, industry, and developers, a major problem in pollution and destruction of our ecology remains individual. Sadly, there are some features of it that are so tied to increased population as to make really clean water, as required by the 1972 Federal Water Pollution Control Act a virtual impossibility in some areas, to the extent that Philip Abelson, in an editorial in *Science*² warns that the time has come to look at the total picture of water pollution—what is practical, the costs, and the benefits. This applies in Tennessee as well as in the coastal areas.

A report by Enviro Control, Inc.³ to the Council on Environmental Quality points out an even more important source of contamination than untreated sewage in surface runoff after storms, which overloads storm sewers and requires bypass of treatment plants. This runoff contains animal excrement, ground up tires, papers, and vegetable material. "The runoff of toxic pollutants, particularly of heavy elements, is . . . [substantial]; a typical moderate-sized city will discharge 100,000 to 250,000 pounds of lead and 6,000 to 30,000 pounds of mercury per year." Added to this is pollution from diffuse rural sources, particularly from manure from farm animals, which contains ten times as much organic matter as do human wastes. Natural weathering adds about 200 million tons annually of inorganic materials, including heavy elements.

I could go on and on reciting polluttional and ecological horrors, but they have been extensively documented in word and photograph, and if you read anything at all, you cannot have escaped being familiarized with the problem. We are concerned here, after having defined the problem, with looking at possible solutions, especially as they apply to us as Tennessee physicians.

Senator Ernest F. Hollings of South Carolina in 1972 sponsored the Coastal Zone Management Act, which Congress, despite opposition from many private interest groups and entrenched bureaucracy, as well as the administration, overwhelmingly enacted into law as P.L. 92-583, with a vote of 68-0 in the Senate and 376-6 in the House. Though all this may seem far away

from us, and not related to our needs in Tennessee, the effective management and beneficial use, protection, and development of this vulnerable resource area is of national interest, and requires a balance in competing uses.

This act is the first of what will probably be a series of federal land use programs, and according to Senator Hollings "might be considered the beginning of the second generation of environmental concern by Congress. The National Environmental Policy Act required that federal agencies build into their decision-making process an appropriate and careful consideration of the environmental aspects of proposed federal actions. The Coastal Zone Management Act goes even further by requiring that such concerns be a part of the everyday decision-making process at the state level and by providing a specific vehicle for expressing that concern."¹

There is always a certain amount of anxiety in watching Big Brother in action. Land use laws will be unpopular with those whose ox is being gored. Yet a large part of the problem in environmental control has been federal agencies, as well as private sources, all of which, for the most part, have gone their merry way in destroying the environment. Our only protection seems to be legislative, and in certain instances, especially as applied to coastal areas and inland waterways, at the federal level. In a sense, we are between the rock and the hard place—between destruction and abridgement of personal freedom.

Where does this leave us, as physicians and as citizens? Any one of us, at a given time, could become a part of a private interest pressure group. It is incumbent upon each of us when we enter into a project of any kind to count the cost, not only to ourselves, but also to the public and to our heirs, and to look, insofar as it is possible with our incomplete knowledge, to any foreseeable long term undesirable effects. We must be careful not to add unnecessarily to the burden of pollution, which becomes increasingly heavy no matter what we do, nor to promote further damage to our ecology. Because doctors tend to get into all sorts of sideline projects, this is not an untimely admonition. We must be statesmen, and not entrepreneurs. We cannot expect, nor should we, to be able to have our own narrow short-term gains at heavy long-term widespread expense, and we should exert whatever pressures we can to ensure that others do

not. In "free enterprise," as in other areas of life, liberty cannot be made a license to steal (although too often it has been), and this includes our natural heritage.

J.B.T.

References

1. Hollings, Sen. EF: "Will We Save Our Coasts?" *Sierra Club Bull*, 59:5, June, 1974.
2. Abelson, PH: Editorial in *Science*. June 28, 1974.
3. Vitale, AM, and Sprey, PM: Total Urban Water Pollution Loads: The Impact of Storm Water. Publ. PB 231-730, National Technical Information Service, Department of Commerce, Springfield, Va. 22151, 1974.

Lo, the Poor FMG

A bit of chauvinism appears in the National News item in this issue of the JOURNAL which should not go unnoted. It concerns "a slashing attack against reliance upon foreign medical graduates (FMG's) [which] has been launched in Washington by the Association of American Medical Colleges (AAMC)."

As I do not have access to the AAMC Task Force report itself, I must rely on the excerpts given by AMA's Washington office, and I admit that this could lead to wrong conclusions. But it's difficult to misinterpret the quote which prompted this editorial, which is: "The foreign-trained physicians 'perform at lower level' in objective-type examinations, and 'it is generally acknowledged, *though not proven* [emphasis mine—Ed] that the medical care rendered by some FMG's is of poorer quality. . . ."

There are two erroneous assumptions in the preceding quote. The first is the assumption that the objective type examination is an acceptable criterion on which to base judgment as to a physician's potential for patient care, when it has been clearly shown and is widely accepted not to be.¹ There are physicians who perform brilliantly on such examinations who perform in an inferior manner in actual practice—they do not or for various reasons cannot practice the best that they know. On the other hand, many FMG's who do an exemplary job in caring for their patients, because of various differences in background, of which language is one, do poorly on examinations of any kind. A language barrier, incidentally, for purposes of examination may produce no difficulty at all in patient care.

The more glaring error, however, is the implication, or perhaps more correctly the insinuation, that because a man is an FMG he will render a poorer quality of medical care. To make this assumption requires an *a priori* assumption

that graduates of American medical colleges are of uniformly high quality, which of course we know is chauvinism on the part of the AAMC, because experience teaches us that it just ain't so! The same can unfortunately be said of medical schools. To assume that every American medical school is superior to every foreign school is sheer folly, no matter how much we might wish it.

It is, however, perhaps correct, though not for the reasons suggested by the AAMC, that we should rely primarily on our own resources for production of our medical personnel. The loss in World War II of our supply of natural rubber because of Japanese hostilities required development of the synthetic rubber industry in America. In like manner, we can't know when our supply of FMG's might dwindle or disappear. What is perhaps more important, though, is that as we absorb FMG's we impoverish their country of origin, which is both uncharitable and impolitic.

If we don't want other people muscling in on our show, OK. Let's be honest and say so. If it's to be politic, and keep them at home, let's say that, too; and we certainly should have only one standard for all physicians. But let's not go about looking down our nose at a brother physician just because he happens not to be a product of our own hallowed halls.

J.B.T.

1. Gonnella, GS. *TMAJ* 65:429, 1972.



BRAUND, RALPH R., Henderson, died July 4, 1974, age 70. Graduate of Tulane University School of Medicine, 1932. Member of Memphis-Shelby County Medical Society.

FARR, STEPHEN THOMAS, Cookeville, died July 13, 1974, age 39. Graduate of University of Tennessee Medical Units, 1959. Member of Putnam County Medical Society.

GREEN, ARTHUR W., Memphis, died July 2, 1974, age 58. Graduate of University of Tennessee Medical School, 1939. Member of Memphis-Shelby County Medical Society.

SMITH, OMAR EWING, Memphis, died July 4, 1974, age 78. Graduate of Vanderbilt University, 1920. Member of Memphis-Shelby County Medical Society.

UTTERBACK, ROBERT ALLEN, Memphis, died July 30, 1974, age 55. Graduate of St. Louis University, 1946. Member of Memphis-Shelby County Medical Society.

new members

The JOURNAL takes this opportunity to welcome these new members of the Tennessee Medical Association.

CHATTANOOGA-HAMILTON COUNTY MEDICAL SOCIETY

Jackson Joe Yium, M.D., Chattanooga

DAVIDSON COUNTY MEDICAL SOCIETY-NASHVILLE ACADEMY OF MEDICINE

Mahin Bayatpour, M.D., Nashville
R. James Farrer, M.D., Nashville
John W. Hollifield, M.D., Nashville
Willis H. Marshall, M.D., Madison
Kenneth L. Poag, M.D., Nashville
Harvey S. Sanders, M.D., Nashville
Inocentes A. Sator, M.D., Old Hickory

GILES COUNTY MEDICAL SOCIETY

J. Vance Fentress, M.D., Pulaski

KNOXVILLE ACADEMY OF MEDICINE

James F. Hudgens, Jr., M.D., Knoxville
John E. Washer, M.D., Knoxville

PUTNAM COUNTY MEDICAL SOCIETY

William M. Humphrey, M.D., Cookeville
James W. Shaw, M.D., Cookeville

ROANE-ANDERSON COUNTY MEDICAL SOCIETY

William M. Hicks, M.D., Clinton
John K. Schanze, M.D., Oak Ridge

SULLIVAN-JOHNSON COUNTY MEDICAL SOCIETY

Gerardo Bellodas, M.D., Bristol
Gustavo Hernandez, M.D., Kingsport
James E. McGuire, M.D., Kingsport

WASHINGTON-CARTER-UNICOI COUNTY MEDICAL ASSOCIATION

Oswald Berrios, M.D., Johnson City
Teodorico P. Cruz, Jr., M.D., Elizabethton
Charles A. Fish, M.D., Johnson City

programs and news of medical societies

Nashville Academy of Medicine and Davidson County Medical Society

The Board of Directors of the Nashville Academy of Medicine met on July 9th and took the following actions: reviewed the development of the Academy's Speakers Bureau including a report that 71 physicians have agreed to serve as speakers; approved a request to pursue funding

for "Tel-Med of Nashville," a public service health information project; nominated Academy members to serve on the medical advisory committees of the Kidney Foundation of Middle Tennessee and the Nashville Regional Eye Bank; and recommended that the Academy work with the Nashville Society for Internal Medicine in a project to notify Academy members to receive annual physical examinations.

The Academy sponsored a seminar on August 3rd directed by the AMA Speakers and Leadership Program staff which included training speakers for presentation before live audiences, television and radio. The program was held to give speakers a better knowledge of techniques in effective public speaking.

national news

THIS MONTH IN WASHINGTON (From Washington, Office, AMA)

Chances of passage this year of any national health insurance (NHI) proposal by either the Senate or the House seem to be dwindling away. The indefinite postponement of Senate Finance Committee hearings on NHI, plus the now ended lackluster once-a-week hearings by the House Ways and Means Committee that dragged out through the spring and early summer seems to indicate the Congress feels it has more pressing matters to deal with, or is baffled as to how to proceed with mandating health insurance for all.

Some veteran Capitol Hill observers believe the most important factor in congressional dawdling on the NHI issue is genuine bafflement—which has led to sharp controversy—on how such a program should be financed.

Most of the NHI proposals vary little in the scope of benefits. There is no sharp disagreement that the program should be comprehensive in nature, and all but one or two of the proposals agree that the administration of the program should be derived from a combination of the federal and private sectors, using the existing private health insurance industry, controlled by federal guidelines and regulations.

The catch comes as to how the program should be financed. Should the program be financed by a Social Security payroll tax, or by mandated employer-employee financing, or by a tax credit system, such as proposed by the American Medical Association in its Mediredit plan?

* * *

The House's Interstate and Foreign Commerce sub-committee on health has crushed by an 8 to 1 vote a public utility-like plan that would control physician fees and hospital charges, a provision regarded by many as the most threatening health measure on Capitol Hill.

The vote appeared to assure the doom of the public utility concept both in the full House Commerce Committee and the House. There remains the possibility of Senate approval, however.

The controversial provision is part of a comprehensive and complicated rewriting of the Comprehensive Health Planning and Regional Medical Programs of the federal government. The proposed strict rate controls exercised by the states are backed by Sen. Edward Kennedy (D-Mass.) and Rep. William Roy (D-Kans.), the latter a physician who cast the lone vote for the provision in the House sub-committee.

The sub-committee adopted a requirement that the local planning agencies monitor individual institutional rates within the state and publicly comment on such rates.

Also included in the sub-committee draft are provisions to require states to have Certificate of Need legislation, or similar legislation relating to the construction of new facilities.

States would be required within three years to review and comment on the need for all facilities and services provided within the state.

* * *

A slashing attack against the nation's reliance upon foreign medical graduates has been launched in Washington by the Association of American Medical Colleges (AAMC).

The present situation "undermines the process of quality medical education in this country and ultimately poses a threat to the quality of care delivered to the people," according to a report by an AAMC task force on FMGs headed by Kenneth Crispell, M.D., vice president for health affairs at the University of Virginia.

Endorsed by the AAMC executive council, the blunt assault on the immigration of FMGs called for application of the same graduate medical education qualifying examinations to all.

The report said:

"This country should not depend for its supply of physicians to any significant extent on the immigration of FMGs or on the training of its own citizens in foreign medical schools." If this results in a projected shortfall of supply, "appro-

priate measures including adequate funding must be taken to enlarge the student body (in domestic schools) accordingly."

The AAMC noted that FMGs are approaching 20 percent of all physicians here and one-third of all current internship and residency training posts are filled by them. The foreign-trained physicians "perform at a lower level" in objective-type examinations, and "it is generally acknowledged, though not proven, that the medical care rendered by some FMGs is of poorer quality . . .," the report charged.

There is no evidence that FMGs either concentrate more on primary care or seek out shortage areas, according to the AAMC. Rather, in the aggregate, the FMGs follow about the same pattern in this regard as domestic graduates.

The report said special licensure provisions for FMGs in many state public institutions "suggests that much health care delivery in the public sector depends on physicians not fully qualified but willing to accept working conditions and income levels qualified physicians will not accept."

"The present system of accepting FMGs into the United States and incorporating them into our medical education and care system has created a category of second-class physicians. From an educational and ethical point of view, this is undesirable," the report said.

A decrease in FMGs would require new methods to ensure patient care services in many hospitals, the AAMC conceded, suggesting that other health care personnel be trained to perform some of these functions under the supervision of physicians.

The task force said it found no significant difference in the qualifications of FMGs who are American citizens who have gone abroad for their training than foreigners.

* * *

Congress has passed and sent to the White House legislation bringing non-profit hospital employees under the Taft-Hartley Labor Act for the first time.

The legislation did not contain a 60-day cooling-off period following a strike call that had been sought by the American Hospital Association as a safeguard against sudden disruptions of service that could jeopardize care in hospitals.

Instead, the bill carried a 30-day cooling-off provision prior to a contract expiration that was supported by Labor and dismissed by hospital officials as essentially meaningless as far as public protection is concerned.

An AHA official said one result of the law would be to spur further the unionization of hospital workers and to generate new pressures for higher pay and fringe benefits. Inclusion under Taft-Hartley guarantees workers certain organizing, mediating and job rights that are not provided by all states.

* * *

The American Medical Association has joined with the Association of American Medical Colleges in opposing the Administration's proposal to cut back on federal aid to medical education.

The Senate Health sub-committee was told by the AMA that "it seems particularly inadvisable to reduce support to institutions with national health insurance now being considered in the Congress."

"Moreover, any shift away from institutional support by requiring students or their families to provide the major portion of education costs through loans or service scholarships may prevent some able students from families with low incomes from contemplating or entering a health profession," the AMA said in a statement submitted to the sub-committee.

"This is not the time," the AMA statement said, "to make sudden shifts in federal policies and to create uncertainty and instability in educational or health care institutions."

At the same time, the AMA opposed a provision of a bill prepared by sub-committee Chairman Edward Kennedy (D-Mass.) that would require all medical school graduates to serve in shortage areas for two years. "These draft-like provisions would be unique to the health professions, would constitute a dangerous precedent, and would be contrary to fundamental concepts of the American educational system," said the statement.

Instead, the AMA fully backed provisions to increase support to the National Health Service Program for placing Public Health Service physicians and health personnel in shortage areas for two years.

In backing scholarships for students, the AMA urged that no strings of repayment or compulsory service be tied to them. They "should be limited to giving able students who could not otherwise enter medicine, or other health fields, the opportunity to do so."

In addition to assistance to students under the National Health Service Corps plan, the AMA backed continuing loan and scholarship assistance without requirement of mandatory service and

with reasonable payback and loan forgiveness provisions.

AMA also supported provisions for expansion of programs in family medicine and primary care as well as authority to expand or construct ambulatory facilities "in which much of family practice and primary care must be learned."

Strongly opposed by the AMA was a recommendation in the Kennedy bill for relicensure of physicians. Said the AMA: "Licensure per se cannot assure high quality of medical care or effectiveness of the practice of physicians. Relicensure has the same limitations. Under present circumstances the process of relicensure could severely disrupt the care of patients in many instances because physicians would have to prepare for examinations and be away from patient care while taking them."

medical news in tennessee

Medical Units Contract Awarded

Officials of the University of Tennessee Center for the Health Sciences have awarded an Oklahoma firm a \$13 million contract for construction of a basic medical sciences and general education building.

Dr. Edmund Pellegrino, chancellor of the UT Medical Units, said Manhattan Construction Co. of Muskogee, Okla. submitted the lowest of six bids, all of which exceeded the \$10 million estimate for construction of the three-story building.

Chancellor Sought for UT Medical School

A 24-member committee has been named to aid in the search for a new chancellor at the UT Center for the Health Sciences in Memphis.

UT President Edward J. Boling appointed the committee to help him select a successor to Dr. Edmund Pellegrino who resigned to become head of the Yale-New Haven University Medical School.

AMA Auxiliary Has New Official

A Nashvillian, Mrs. Erle E. Wilkinson, is the new president-elect of the Woman's Auxiliary to the American Medical Association.

A member of the Auxiliary since 1942, Mrs. Wilkinson has served as first vice-president of the national auxiliary and president of her state and county auxiliaries.

She has also been a director and the chairman of several AMA committees.

A native of Charlotte, N.C., Mrs. Wilkinson received her B.S. degree in nursing from Vanderbilt University.

Physicians Seek Membership in Memphis-Shelby County Foundation

Nearly one-third of the 1,200 physicians in Memphis and Shelby County have applied for membership in the Shelby County Foundation for Medical Care.

The Shelby County Foundation is to become a Professional Standards Review Organization (PSRO). Physicians who are members of a PSRO are expected to review treatment of hospital patients to standardize the quality of medical care in their area.

A 1972 amendment to the Social Security Act requires PSROs to review the charts for patients whose hospital bills are paid by Medicaid, Medicare or maternal health and child welfare programs.

Award Honors VU Professor

An Addison Scoville Award, honoring Dr. Addison B. Scoville, Jr., Nashville, a clinical professor of medicine at Vanderbilt University, and Associate Editor of the JOURNAL, has been established by the American Diabetes Association.

The award was announced at the annual meeting of the group in Atlanta in honor of Dr. Scoville's work in advancing the treatment of diabetes.

The Diabetes Association, a voluntary health agency of doctors, nurses, dieticians and concerned laymen, has honored only two other men with similar awards: Sir Frederick Banting and Charles Best, the two men who discovered insulin.

Dr. Scoville was also named the recipient of the Banting Medal in recognition of his outstanding service as immediate past-president of the Association.

No decision has been made on what form the Scoville Award will take. It is expected to consist of a medal and monetary award for distinguished service in the field of diabetes.

New TV Series on Health for Adults

The Children's Television Workshop (CTW), originally created to do experimental educational programs for children ("Sesame Street" and "The Electric Company"), is producing its first series

for adults. The subject is health. The primary target audience will be parents. The needs of the low-income family will be of special concern to the producers.

The weekly *Alive & Well* series will premiere Wednesday, Nov. 20, 1974 on the 250 stations of the Public Broadcasting Service (PBS). Initial air time will be in the early evening, with a repeat showing on Saturday or Sunday evening. The series will consist of 26 hour-long programs.

The theme is prevention, and the objective is increased public awareness of good health practices and personal responsibility for one's own well-being. The series will stress self-help ideas: how to stay well, how not to get sick; the fact that most people have more control over their health than they realize.

Eleven priority areas will be covered. Each will be treated several times during the season (but rarely, if ever, will a show be limited to a single topic). While prevention is the main theme, the series will also cover health problems that are relatively easy to detect and treat (hypertension, diabetes) as well as more serious problems that have a high incidence in our society (cancer, heart disease). Other topics will include alcohol abuse, prenatal and child care, dental care, exercise, nutrition, mental health and aspects of the health care delivery system (when and where to seek help, the doctor/patient relationship, role of allied health personnel, etc.).

personal news

DR. W. B. ACREE, Ridgely, has been recognized by the Illinois Central Railroad for serving as company physician for 25 years.

DR. ROBERT P. BALL, Nashville, Tennessee's Outstanding Physician of the Year for 1974, has retired after a distinguished 50-year career of medical practice.

DR. ALBERT W. DIDDLE, Knoxville, chairman of the Department of Obstetrics and Gynecology at the University Hospital from 1956 to 1972, is retiring that position to enter private practice.

DR. J. P. DIETRICH, McMinnville, who recently announced retirement after almost three decades of practice, has been honored with an open house.

DR. BORIJOV S. DIVCIC, Union City, has been appointed as the first full-time clinical director of the Northwest Tennessee Mental Health Center.

DR. JAMES R. FRENCH, Jackson, has been named

chairman of the Jackson-Madison County Breath of Life Campaign.

DR. JOHN B. LYNCH, Nashville, head of the division of plastic surgery at Vanderbilt University Medical Center, has been named to membership in the American Board of Plastic Surgery.

DR. DONALD C. THOMPSON, Morristown, has been appointed associate clinical professor in the department of the University of Tennessee College of Pharmacy.

The following physicians have completed continuing education requirements to retain active membership in the American Academy of Family Physicians: DR. ROBERT E. CLENDENIN JR., Union City; DR. PRESTON C. McDOW, Chattanooga; DR. E. P. (PAUL) MOBLEY JR., Paris; DR. KENNETH J. PHELPS, Lewisburg; and DR. ROBERT EARL WILSON, Kingston.

announcements

CALENDAR OF MEETINGS

1974	NATIONAL
Sept. 18-21	American Thyroid Association, Stouffer's Riverfront Inn, St. Louis, MO
Oct. 4-5	American Society of Ophthalmologic and Otolaryngologic Allergy, Adolphus, Dallas, TX
Oct. 4-11	American Society of Clinical Pathologists, Sheraton Park, Shoreham, Statler Hilton and Mayflower Hotels, Washington, DC
Oct. 4-11	College of American Pathologists, Sheraton Park, Shoreham, Statler-Hilton, and Mayflower Hotels, Washington, DC
Oct. 5-8	American Association of Ophthalmology, Sheraton-Dallas, Dallas, TX
Oct. 5-12	Western Orthopedic Association, Hilton Honolulu, Honolulu, HA
Oct. 6-8	Emergency Medicine Symposium, Sheraton-Towers Hotel, Orlando, FL
Oct. 6-10	American Academy of Ophthalmology and Otolaryngology, Convention Center, Dallas, TX
Oct. 12-16	American Society of Anesthesiologists, Washington Hilton-Statler Hilton, Washington, DC
Oct. 14-17	American Academy of Family Physicians, Los Angeles Hilton, Los Angeles, CA
Oct. 16-18	American Cancer Society, Waldorf-Astoria, New York, NY
Oct. 17-19	American Association for the Surgery of Trauma, Homestead, Hot Springs, VA

Oct. 19-24	American Academy of Pediatrics, St. Francis and San Francisco Hilton, San Francisco, CA	Nov. 17-20	Southern Medical Association, Marriott Motor Hotel, Atlanta, GA
Oct. 20-22	American College of Preventive Medicine, New Orleans, LA	Nov. 18-22	American Heart Association, Fairmont, Dallas, TX
Oct. 20-23	American College of Gastroenterology, Americana, Bal Harbour, FL	Nov. 21-24	American Association for Clinical Immunology and Allergy, Pier 66, Ft. Lauderdale, FL
Oct. 21-25	American College of Surgeons, 60th Annual Clinical Congress, Miami Beach, FL	Nov. 30- Dec. 4	American Medical Association, Portland, OR
Oct. 24-27	American Academy of Child Psychiatry, Fairmont, San Francisco, CA	1974	STATE
Oct. 25-27	American Association for Hand Surgery, Shamrock Hilton Hotel, Houston, TX	Sept. 30- Oct. 1	Tennessee Valley Medical Assembly, 22nd Annual Meeting, Read House, Chattanooga, TN
Oct. 27- Nov. 1	American Society of Plastic and Reconstructive Surgeons, Shamrock Hilton, Houston, TX	Oct. 11-12	American College of Physicians, Kentucky/Tennessee Regional Meeting, Ramada Inn, Lexington, KY
Nov. 3-7	American College of Chest Physicians, The Marriott, Rivergate, New Orleans, LA	Oct. 17	Middle Tennessee Medical Association, Annual Meeting, Montgomery Bell State Park, Dickson, TN.
Nov. 7-9	Southern Thoracic Surgical Association, Williamsburg Inn and Lodge, Williamsburg, VA	Nov. 2	Tennessee Licensure Examination for Medical Laboratory Personnel. Applications available from: Laboratory Licensing Service, Room 358, Capitol Hill Bldg., Nashville, TN 37219
Nov. 9-14	American Association of Blood Banks, Disneyland Hotel, Anaheim, CA		
Nov. 9-14	American Society of Maxillofacial		

* * *

ANSWERS TO THE COOPER REVIEW (from page 755)

1. (C) Although the oncotic pressure of blood is 25mm/Hg., pulmonary edema does not usually occur until hydrostatic pressure in the pulmonary capillary bed exceeds 35mm/Hg. This 10mm/Hg. "reserve" is due to the fact that at pulmonary capillary pressures between 25-35mm/Hg., the pulmonary lymphatics are capable of mobilizing sufficient fluid from the interstitial spaces to prevent transudation into the pulmonary alveoli. However, the increase in interstitial fluid will produce dyspnea. Thus, in early congestive heart failure, dyspnea may be present in the absence of pulmonary rales. When lymphatic channels are damaged due to chronic lung disease, pulmonary edema may occur at pulmonary capillary pressures less than 35mm/Hg.
2. TRUE. A peptic stricture, particularly in the middle of the esophagus, is a dread fear of prolonged nasogastric intubation. It is presumed that acid material refluxes through the lower end of the stomach into the esophagus, causing a peptic stricture. One way to avoid this peptic stricture is, of course, not to have prolonged intubation; but another way is to elevate the head of the bed on 6-inch blocks.
3. FALSE. Anticholinergics, while decreasing gastric acidity, also decrease the pressure of the lower

esophageal sphincter area so that any acid or bile present in the stomach may continue to reflux into the esophagus. Urecholine, a parasympathomimetic drug, is used effectively in treating heartburn, because it increases pressure in the lower end of the esophagus, preventing reflux. Antacids, likewise, are useful in peptic esophagitis, because antacids neutralize gastric acidity and at the same time increase the release of endogenous gastrin from the gastric antrum. The hormone, gastrin, increases the pressure at the lower end of the esophagus, further preventing gastric acid reflux.

4. TRUE. Both fatty meals and cigarette smoking appear to lower sphincter pressure at the distal end of the esophagus, allowing whatever gastric acid or bile in the stomach to reflux into the esophagus. Fat may act this way, perhaps by causing release of cholecystokin-pancreozymin which may decrease the pressure in the lower esophageal sphincter area.
5. Gout is seen as a secondary manifestation of polycythemia vera. Pseudo-gout is often seen in association with hyperparathyroidism. Bilateral carpal syndrome is a frequent rheumatic manifestation of hypothyroidism, and is often the problem that causes the patient to present to the physician. Premature osteoarthritis is probably causally related to acromegaly, secondary to excessive growth hormones on cartilage.



TMA JUDICIAL COUNCIL
Excerpts of Minutes of Meeting
July 14, 1974

Confidentiality of Medical Information

The general problem of confidentiality of medical information was discussed with particular reference to requests for medical information initiated by insurance companies but transmitted to physicians through intermediary organizations.

Discussion and Action

The Council cautions members of TMA to examine carefully authorizations for release of information and urges that they furnish only the information requested and transmit it only directly to a recipient named in the authorization and not to an organization or individual covered in the release by the term "bearer," "its authorized representative," etc. It is ethically required that physicians preserve the confidentiality of medical information.

Use of the Word "Clinic"

The propriety of the use of the word "clinic" on a doctor's office building has again been questioned and the Council was asked whether this may ethically be done.

Discussion and Action

The Council considers it appropriate for any group of two or more physicians practicing cooperatively as a medical group to designate their place of practice as a clinic. The Council recognizes that there are situations, particularly in rural areas where a single doctor may reasonably designate his place of practice as a clinic but feels that this is appropriate only if he employs assistants and maintains ancillary services beyond those usually found in a single doctor's office. Attention is called to the proscription by law of large or ostentatious signs which might be construed as advertising, whether or not they contain the word clinic, and also to the legal requirement that the name of each doctor practicing in a location be displayed at the front of the location by a sign with letters "at least one inch high."

Pathology Services

The Council was asked to rule on ethical ques-

tions relating to pathologists who wish to offer their services to hospitals.

Discussion and Action

The Judicial Council of the American Medical Association states emphatically that solicitation of patients or patronage, either directly or indirectly, is unethical. The laws of the State of Tennessee also forbid solicitation and advertising of any kind, specifically referring to "... circulars, cards, . . . or any kind of written publication."

The Judicial Council interprets these proscriptions to include specifically:

1. Solicitation of referrals or consultative patronage from physicians, hospital staffs or hospitals, and
2. Circulating literature describing physician services and fees, and
3. Circulating price lists of noninterpretive laboratory procedures in any manner in which the physician performing or supervising the performance of the tests or having a proprietary interest in or professional relationship with the clinical laboratory offering the tests is identified.

Many pathologists provide both diagnostic interpretive services as well as the nondiagnostic service of supervising the performance and noninterpretive reporting of clinical laboratory tests. The former is part of the practice of medicine and must always be governed by the principles of medical ethics. The latter is an ancillary service not necessarily requiring the exercise of professional judgment and may, under some conditions, be free of the restrictions of medical ethics, but where provided by a physician or a group of physicians it must be treated as a professional service and as such may not be advertised or solicited for in any way. Where provided by a corporation partially or totally owned by a physician or for which the physician serves as a consultant, the rules of commerce may apply but the physician's name and identity may not be used in any promotional way.

It is the ethical responsibility of a physician rendering both professional and nonprofessional services to insure that his name is not used in connection with the nonprofessional services if they are rendered in a commercial format. It is also his ethical responsibility to insure that no solicitation on behalf of his professional services is made by representatives who may offer, in the commercial format, his nonprofessional services.

Billing for Professional Services

The Judicial Council continues to work with the problem of enforcing the ethical requirement of "separate billing" of professional services by physicians working in the hospitals.

Discussion and Action

The Judicial Council has requested the Joint Commission on Accreditation of Hospitals to assist it in enforcing this ethical requirement by criticizing hospitals who have unethical contracts with physicians. The Joint Commission has agreed to consider appropriate action against hospitals found to have such unethical contracts but can act only when presented with specific accusations by a local or state medical society. To this end the Council requests identification of any hospitals and/or physicians who are parties to contracts which allow hospitals to bill for professional services of physicians in violation of the provisions of TMA Resolutions 10-74 and 8-73 (printed below). The Council will then request the aid of the Joint Commission in specific instances and will call to account the physicians involved.

CLARENCE C. WOODCOCK, M.D.
Chairman

RESOLUTION NO. 10-74 Definition of Separate Billing by Hospital Based Physicians By: JUDICIAL COUNCIL

TENNESSEE MEDICAL ASSOCIATION

WHEREAS, The Judicial Council of the Tennessee Medical Association has previously sponsored in this House resolutions dealing with separate billing by hospital based physicians, these resolution having been adopted as policy; and

WHEREAS, Substantial differences in interpretation of this policy exist among physicians in Tennessee; and

WHEREAS, This House clarified its stand on separate billing by physicians staffing hospital emergency rooms by adopting, in April, 1973 TMA Resolution No. 7-73 which stated in part that:

"It is ethical and legal for hospitals to serve as billing and collecting agents for physicians."
and TMA Resolution No. 8-73 which set forth the following guidelines:

1. Licensed physicians staffing Emergency Rooms in hospitals must charge for their medical services and shall bill their patients for such services.
2. Physicians' services shall be billed separately from hospital services.
3. Hospitals may serve as billing or collecting agents for physicians.
4. Physicians may pay hospitals reasonable compensation for the hospital's services as a billing or collecting agent.

5. Hospitals may pay physicians' salaries for hospital administrative services, supervisory responsibilities, educational activities and physical presence.";
- and

WHEREAS, The Judicial Council now reaffirms its previous position that the principle and guidelines quoted hereinabove are consistent with the Principles of Medical Ethics of the American Medical Association and of the Tennessee Medical Association. Now, therefore be it

RESOLVED, That the principle and guidelines quoted hereinabove are extended to apply to all physicians; and be it further

RESOLVED, That "separate billing" is defined as any billing method that:

1. Identifies the physician(s) who rendered services and
2. Identifies the fee(s) charged by the physician(s) for said services as line items separate from other charges appearing on the same bill and
3. Clearly states that the billing agent (hospital or other) is billing for the physician(s) at his request and on his instruction and
4. That residents in training programs be informed of the position of the Tennessee Medical Association regarding separate billing.

Reference Committee C—recommended adoption of the resolution and submitted several amendments to the resolution. The resolution was further amended by the House of Delegates to add a new Section 4 which reads: "That residents in training programs be informed of the position of the Tennessee Medical Association regarding separate billing."

ACTION: ADOPTED AS AMENDED

RESOLUTION NO. 8-73 Physicians Employed to Staff Hospital Emergency Rooms By: JUDICIAL COUNCIL

TENNESSEE MEDICAL ASSOCIATION

WHEREAS, Hospitals in Tennessee find it difficult in staffing their emergency rooms with qualified, licensed physicians; and

WHEREAS, It is illegal for an unlicensed physician to practice medicine in Tennessee, and under the Code of Ethics and existing policy of the Tennessee Medical Association, a physician should not dispose of his professional services to any hospital, corporation or lay board by whatever named called under terms or conditions which permit the sale of the services of that physician by such agency for a fee; and

WHEREAS, Contract practice is unethical if it permits features or conditions that are declared unethical in the Principles of Medical Ethics, or if the contract or any of its provisions causes deterioration of the quality of medical services rendered; and

WHEREAS, The Judicial Council of the Tennessee Medical Association recommends that previously formulated policies of the House of Delegates be

amended, and that guidelines for hospital emergency room services by physicians be in keeping with the recommendations of the special study committee of representatives and attorneys from the Tennessee Medical Association, Tennessee Department of Public Health, and the Tennessee Hospital Association. Now, therefore be it

RESOLVED, That the following guidelines be adopted as policy of this Association as they pertain to staffing of emergency rooms by licensed physicians in hospitals of the State of Tennessee:

1. Licensed physicians staffing emergency rooms in hospitals must charge for their medical services and shall bill their patients for such services.
2. Physicians' services shall be billed separately from hospital services.

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3. Hospitals may serve as billing or collecting agents for physicians.
4. Physicians may pay hospitals reasonable compensation for the hospital's services as a billing or collecting agent.
5. Hospitals may pay physicians' salaries for hospital administrative services, supervisory responsibilities, educational activities and physical presence.

Reference Committee C—stated that the resolution should clearly state that hospitals may pay physicians' salaries for hospital administrative services, supervisory responsibilities, educational activities and physical presence.

ACTION: ADOPTED AS AMENDED

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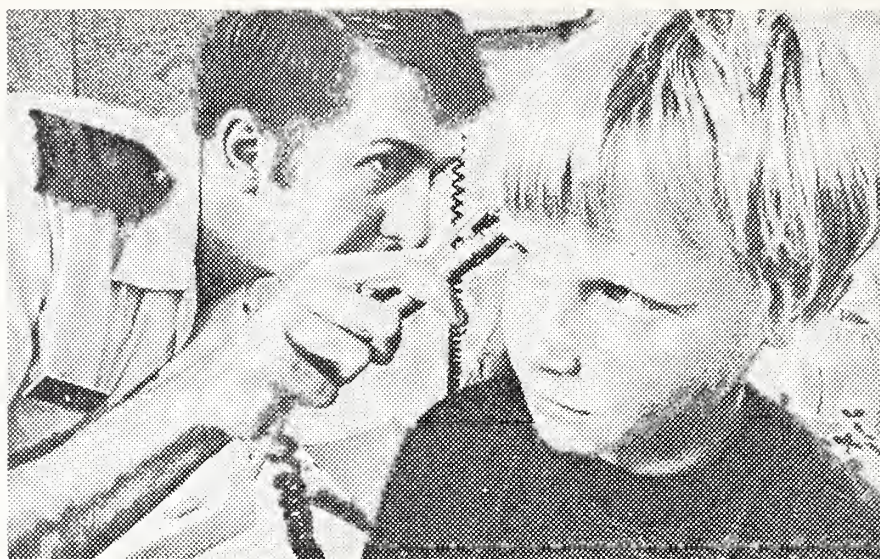
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continuing education opportunities

The continuing medical education accreditation program of TMA has full approval by AMA's Council on Medical Education. If the continuing medical education program of your hospital or medical society is accredited by TMA's committee, you may receive for your attendance at its functions Category 1 credit for the AMA Physician's Recognition Award. If you wish information as to how your hospital or society may receive accreditation, write: Director of Continuing Medical Education, Tennessee Medical Association, 112 Louise Avenue, Nashville, Tennessee 37203.

Clinical Training Program For Practicing Physicians

Opportunities for advanced clinical education for physicians in family practice and in various subspecialties have been developed by the School of Medicine and the Division of Continuing Education of Vanderbilt University. The practicing physician, with the guidance of the participating department chairman, can plan an individualized program of one to four weeks to meet recognized needs and interests. The experience will include contact with patients, discussion with clinical and academic faculty, conferences, ward rounds, learning individual procedures, observing new surgical techniques, and access to excellent library resources. Experience in more than one discipline may be included.

Participating Departments and Divisions

Anesthesiology	Bradley E. Smith, M.D.
Medicine	Grant W. Liddle, M.D.
Cardiology	Gottlieb C. Friesinger, III, M.D.
Chest Diseases	James D. Snell, M.D.
Dermatology	Robert N. Buchanan, Jr., M.D.
Endocrinology & Diabetes	Grant W. Liddle, M.D.
Gastroenterology	Steven Schenker, M.D.
Hematology	Robert C. Hartmann, M.D.
Infectious Diseases	Zell A. McGee, M.D.
Renal Diseases	H. Earl Ginn, M.D.
Clinical Pharmacology	John A. Oates, M.D.
Neurology	Gerald M. Fenichel, M.D.
Obstetrics & Gynecology	Paul W. Griffin, M.D.
Pathology	Virgil S. LeQuire, M.D.
Pediatrics	David T. Karzon, M.D.
Psychiatry	Marc H. Hollender, M.D.
Radiology	John R. Amberg, M.D.
Surgery	
General	H. William Scott, Jr., M.D.
Neurological	William F. Meacham, M.D.
Ophthalmology	James H. Elliott, M.D.
Oral	H. David Hall, D.M.D.

Pediatric	James A. O'Neill, M.D.
Plastic	John B. Lynch, M.D.
Thoracic & Cardiac	Harvey W. Bender, M.D.
Urology	Robert K. Rhamy, M.D.
Cancer Chemotherapy	Vernon H. Reynolds, M.D.

ELIGIBILITY: All licensed physicians are eligible.

ADMINISTRATIVE FEE: \$200.00 per week.

CREDIT: American Medical Association Physician's Recognition Award and American Academy of Family Physician's Continuing Education accreditation.

APPLICATION: For further information and application, contact:

Paul E. Slaton, M.D., Director, Continuing Education
305 Medical Arts Building
Nashville, TN 37212 Tel. 615-322-2716

Third Annual Symposium: Topics in Internal Medicine

Sponsored by The Knoxville Society of Internal Medicine and the Department of Medicine, The University of Tennessee, Memorial Research Center and Hospital

Auditorium, The University of Tennessee Memorial Research Center and Hospital, 1924 Alcoa Highway, Knoxville, TN October 18, 1974

For Information write:

Richard L. Whittaker, M.D.
U.T. Memorial Research Center & Hospital
1924 Alcoa Highway
Knoxville, TN 37920

The University of Tennessee College of Medicine

CONTINUING MEDICAL EDUCATION: Wassell Randolph, Student-Alumni Center, 800 Madison Avenue, Memphis, Tennessee.

PSEUDOGOUT, OSTEOPOROSIS AND OSTEOARTHRITIS, October 2, 1974.

RHEUMATOID ARTHRITIS AND OTHER RHEUMATIC DISEASES, October 3, 1974.

THE LUNG: IMMUNOLOGIC TARGET ORGAN, October 4, 1974.

Tuition Fee: Physicians in Practice: \$85.00 for 3 days
Cost per Day: \$30.00 (Physicians may attend one or two days at this cost per day)

Each fee includes the cost of the lunch on each day.

Registration: As a minimum and maximum enrollment has been established, advance registration would be appreciated. Make check payable to THE UNIVERSITY OF TENNESSEE: complete application and return with fee to:

Division of Continuing Education & Conferences
U.T. Center for Health Sciences
800 Madison Avenue
Memphis, TN 38163

Schedule for Upcoming NCME Programs

Sept. 9-22 RENAL BIOPSY: WHEN WILL IT HELP THE CHILD?, with Shane Roy, III, M.D., Pediatric Nephrologist, and Associate Professor of Pediatrics, University of Tennessee School of Medicine, Memphis.

THE VAGINA AND SEXUAL DYSFUNCTION, with Philip A. Sarrel, M.D., Associate Professor of Obstetrics and Gynecology, Yale University Medical School; and Mrs. Lorna Sarrel, Co-Director, Human Sexuality Program, Yale Student Mental Hygiene Department, New Haven, Connecticut.

THE NATIONAL ANTIBIOTIC THERAPY TEST: FIRST RESULTS, with Edmund D. Pellegrino, M.D., Chancellor of the Medical Units, University of Tennessee and member of the NCME Medical Advisory Committee; Alan L. Goldberg, M.D., family physician from the Bronx and member of the NCME Medical Advisory Committee; and Harold C. Neu, M.D., Head, Infectious Diseases, Columbia University College of Physicians and Surgeons, New York.

Oct. 7- EARLY PROSTHEIC FITTING FOR
Oct. 20 CONGENITAL DEFECTS OF THE EXTREMITIES, with Charles H. Epps, Jr., M.D., Professor and Chief of Orthopedic Surgery, Howard University College of Medicine, Washington, D.C.

CORTICOSTEROIDS: TREATMENT FOR THREE CONNECTIVE TISSUE DISEASES, with Richard H. Ferguson, M.D., Associate Professor of Medicine, and Head of a Section of Rheumatology, Mayo Clinic and Mayo Foundation, Minnesota.

OFFICE TREATMENT OF SKIN CANCER, with Rex A. Amonette, M.D., Chemosurgeon, member of the Department of Dermatology, University of Tennessee College of Medicine, Memphis.

(Program scheduling subject to change)

For more information about NCME, write The Network for Continuing Medical Education, 15 Columbus Circle, New York, New York 10023.

Audio-Cassette Directory Available

Many doctors rely upon audio-cassette tape-recordings for part of their continuing medical education, usually by subscribing to Audio-Digest or Accel or one of the other well-known educational services. There are, however, many other medical programs that are available on audio-cassettes, often without charge.

To aid the physician in locating these little-known but often useful programs, Cassette Information Services of Los Angeles has published its 1974 Directory of Spoken-Voice Audio-Cassettes. Although the services for the health sciences—medicine, nursing, pharmacy, dentistry, hospital administration—comprise a large portion of this 108-page directory, it lists programs in all fields and interests. These range from courses for accountants and management executives to inspirational and entertainment tapes for shut-ins. There is also a large selection of "how-to-do-it" programs, including many on such topics of interest to the physician as hypoglycemia, acupuncture and the Lamaze method of childbirth preparation.

The CIS Directory is not a catalog, but rather a compendium of program titles and subjects that can be found on audio-cassettes, a brief description of each (including price), and from whom the tape or more information may be obtained. The directory itself is available for \$5.00 from Cassette Information Services, Box 17727, Los Angeles, CA 90057.

Free Directory of Cassette Producers

Cassette House, Inc. has just compiled a directory listing over 250 companies producing spoken voice audio-cassettes. The producers are listed alphabetically according to the subject matter of the tapes they produce. There are 63 firms listed that produce tapes on medical, dental, nursing, pharmaceutical, health administration and related fields; and 40 on adult education and self-improvement, etc.

For a free copy of this directory write to: Cassette House, Inc., 1030 E. Northwest Highway, Mount Prospect, IL 60056.

University of Louisville School of Medicine Symposium on Drugs in the Newborn

The Department of Pediatrics, University of Louisville School of Medicine, presents its Eighth Annual Newborn Symposium, November 7 and 8, 1974, to be held at the Health Sciences Center Auditorium, Louisville, Kentucky.

Dr. Virginia Apgar will deliver the 1974 Tenth Annual Louisville Pediatric Lecture on November 6.

For information write: Dr. Billy F. Andrews, 200 East Chestnut Street, Louisville, KY 40202.

American Board of Family Practice Set Exam Date

The American Board of Family Practice announces that it will give its next two-day written certification examination on October 19-20, 1974. It will be held in five centers geographically distributed throughout the United States. Information regarding the examination may be obtained by writing:

Nicholas J. Pisacano, M.D., Secretary
American Board of Family Practice, Inc.
University of Kentucky Medical Center
Annex #2, Room 229
Lexington, KY 40506

PLEASE NOTE: Examinations are scheduled to be held in San Francisco, New York, Chicago, Atlanta and Houston. In 1975 the Board plans to hold examinations immediately following the AAFP Assembly in October in the same cities.

The American College of Physicians Postgraduate Courses for October

CURRENT CONCEPTS OF CLINICAL HEMATOLOGY, University of Virginia Medical School, Charlottesville, VA, Oct. 2-4.

CLINICAL COURSE IN NEPHROLOGY, Royal Victoria Hospital, McGill University, Montreal, P.Q., CAN, Oct. 7-9.

OCCUPATIONAL MEDICINE FOR THE INTERNIST AND FAMILY PHYSICIANS, Americana Hotel, New York, NY, Oct. 8-11.

NEW DEVELOPMENTS IN DIAGNOSIS AND TREATMENT OF DISEASE WITH RADIONUCLIDES, University of Michigan Medical Center, Towsley Center, Ann Arbor, MI, Oct. 21-25.

RHEUMATIC DISEASES, Harvard Medical School and Peter Bent Brigham Hospital, Jimmy Fund Auditorium, Children's Hospital Medical Center, Boston, MA, Oct. 21-25.

VALVULAR HEART DISEASE—University of New Mexico School of Medicine, Albuquerque, NM, Oct. 24-26.

CRISIS MEDICINE, Albany Medical College, Hyatt House, Albany, NY, Oct. 28-31. *Info: Registrar, Postgraduate Courses, ACP, 4200 Pine Street, Philadelphia, PA 19104.*

FIFTH ANNUAL AUTUMN SYMPOSIUM on PEDIATRIC GASTROENTEROLOGY AND NUTRITION

Friday and Saturday, September 20-21, 1974, at the University Club of Nashville
Harry L. Greene, M.D., Moderator

Extended discussion periods are planned, and registrants are encouraged to bring particular questions and problems for discussion.

Sponsors: Department of Pediatrics and Division of Continuing Education, Vanderbilt University School of Medicine; Davidson County Pediatric Society; Tennessee Academy of Family Physicians; Children's Hospital at Vanderbilt University.

For further information and registration, contact Vanderbilt Continuing Education, 305 Medical Arts Bldg., Nashville 37212; telephone 615-322-2716.

CONSULTATION ON EUTHANASIA AND HUMAN EXPERIMENTATION

Thursday, October 17, 1974
at the

Center of Continuing Education at Scarritt College
19th Avenue South, Nashville, Tennessee

. . . . to bring together medical doctors, clergy, humanists, nurses, social workers, and directors of nursing homes and retirement homes to explore and analyze critical issues involved in euthanasia and human

experimentation . . . to consider and clarify bases for decisions and actions in these areas.

Presented by: The Center of Continuing Education at Scarritt College; Division of Continuing Education, Vanderbilt University School of Medicine; Vanderbilt University Divinity School; Tennessee Academy of Family Physicians.

For further information and registration contact Vanderbilt Continuing Education, 305 Medical Arts Building, Nashville 37212; telephone 615-322-2716. Registration fee of \$10.00 includes luncheon.

American College of Gastroenterology COURSE IN POSTGRADUATE GASTROENTEROLOGY

October 24, 25, 26, 1974

The Annual Course in Postgraduate Gastroenterology of the American College of Gastroenterology will again be offered on October 24, 25, 26, 1974, at The Americana, in Bal Harbour, Fla., immediately following the 39th Annual Convention to be held at the same place on October 21, 22, 23, 1974.

This year the Course will be given in cooperation with the University of Miami, by a distinguished faculty from various parts of the United States and abroad.

The Course will be open to members and non-members of the College.

THIS COURSE HAS RECEIVED CATEGORY "A" APPROVAL AND ACCREDITATION OF THE COUNCIL ON MEDICAL EDUCATION OF THE AMERICAN MEDICAL ASSOCIATION.

Write: American College of Gastroenterology
299 Broadway, N.Y. City 10007

American College of Physicians Specialty Courses PULMONARY DISEASE

For Information and Registration: Registrar, Postgraduate Courses, ACP, 4200 Pine Street, Philadelphia, PA 19104.

"Mechanisms and Management of Clinical Pulmonary Disease" Sept. 30-Oct. 4, 1974, Philadelphia, PA. The course is held in conjunction with the University of Pennsylvania School of Medicine.

The course is aimed at internists and pulmonary specialists who are responsible for the diagnosis and treatment of respiratory disease. The theories and techniques of general pulmonary care will be covered in the morning sessions; afternoon workshops will stress the practical aspects of clinical pulmonary care. Participant interaction with the faculty in the performance of important diagnostic and therapeutic techniques will be emphasized.

TREATMENT OF GASTROINTESTINAL DISEASE

"Physiologic Approaches to the Diagnosis and Treatment of Gastrointestinal Disease" Sept. 30-Oct. 3, 1974, Philadelphia, PA. The course is held in conjunction with the Gastrointestinal Section of the University of Pennsylvania.

Morning lectures will deal with the pathophysiology, diagnostic approach and therapeutic rationale for major

gastrointestinal disease problems. Small group workshops will be conducted on these topics in the afternoon; they will be problem-oriented and deal with actual case histories including x-rays, biopsies and special studies.

"Coronary Artery Disease—1974"

This course is sponsored by the American College of Chest Physicians and the Page and William Black Postgraduate School of the Mount Sinai School of Medicine of the City University of New York and will be held in New York, New York, October 3-5, 1974.

An internationally known faculty will review the fundamental concepts concerning mechanisms of development, diagnosis, medical and surgical treatment of coronary artery disease. This course will highlight the most important and significant advances in the following areas of coronary heart disease: natural history and prognostic factors; conduction abnormalities; pacemakers; pharmacology; and rehabilitation.

The format of this program will allow dialogue between the registrant and faculty through panel discussions, question and answer sessions and small group seminars.

This program is acceptable for 17 hours credit under Category 1 of the American Medical Association's Physician's Recognition Award. Registration fees are: \$100 for ACCP members; \$125 for nonmembers; and \$50 for residents.

For further information please write: Bradford W. Claxton, M.Ed., Director of Continuing Education, American College of Chest Physicians, 911 Busse Highway, Park Ridge, Illinois 60068.

The Postgraduate Medical Education Committee of the American College of Chest Physicians 1974-1975 Postgraduate Programs

The ACCP in co-sponsorship with leading medical schools and teaching hospitals offer physicians and surgeons a continuing education program specializing in the diagnosis and treatment of heart and lung diseases. Each program will incorporate a variety of educational methods designed to insure student participation in the learning process.

The continuing education program for physicians sponsored by the American College of Chest Physicians has been accredited by the Council on Medical Education of the American Medical Association and is acceptable for credit toward the AMA Physician's Recognition Award.

For further information contact: Bradford W. Claxton, M.Ed., Director of Continuing Education, American College of Chest Physicians, 911 Busse Highway, Park Ridge, Illinois 60068.

1974

September 19-21

"Hypoxemic Respiratory Failure: Mechanisms and Management"

Location: Ann Arbor, Michigan

September 19-20

"Flexible Fiberoptic Bronchoscopy—Clinical Experience and Practical Workshop"

Location: East Meadow, Long Island, N.Y.

October 3-5

"Coronary Artery Disease—1974"

Location: New York, New York

October 21-November 1

"A National Seminar for Registered Nurses Working in Critical Care"

Location: Denver, Colorado

November 4

"Critical Care—A Postgraduate Course for Nurses and Physicians"

Location: New Orleans, Louisiana

1975

February 24-27

"Pediatric Cardiopulmonary Problems—Diagnosis and Management—Newborn to Young Adult"

Location: Snowmass, Aspen, Colorado

February 24-28

"The Diagnosis and Treatment of Acute and Chronic Respiratory Failure"

Location: Miami Beach, Florida

March 12-14

"Cardiology for the Practitioner"

Location: Warren, Vermont

April 2-4

"Occupational Pulmonary Diseases"

Location: Morgantown, West Virginia

April 30-May 2

"Pulmonary Disease: The Changing Scene"

Location: Toronto, Canada

June 23-25

"Critical Care—A Postgraduate Course for Nurses and Physicians"

Location: Nashville, Tennessee

* * *

For further information contact:

Bradford W. Claxton, M.Ed.

Director of Continuing Education

School of Medicine Medical College of Georgia Augusta, Georgia

1974-1975

CONTINUING MEDICAL EDUCATION

FAMILY PRACTICE SYMPOSIUM

September 23-27, 1974

ADMINISTRATION AND EDUCATION IN THE CLINICAL LABORATORY

October 18-19, 1974

BASIC NEUROLOGY FOR THE PRACTITIONER

February 20-21, 1975

CLINICAL PSYCHIATRY

February 27-28, 1975

MEDICINE AND RELIGION

March 10, 1975

JOURNAL OF THE TENNESSEE MEDICAL ASSOCIATION

MAKING SURGICAL DECISIONS

March 13-14, 1975

GASTROINTESTINAL DISEASES

The Atlanta Marriott, Atlanta, Georgia

March 20-22, 1975

INFECTIOUS DISEASES—DIAGNOSIS AND MANAGEMENT

April 3-4, 1975

RECENT ADVANCES IN OPHTHALMOLOGY

The Cloister, Sea Island, Georgia

May 19-21, 1975

INTERNAL MEDICINE

Buccaneer Motor Lodge, Jekyll Island, Georgia

June 12-14, 1975

PHYSICIANS CONTINUING EDUCATION SERIES

Dalton, Georgia

January 9, February 13, March 13, and April 3, 1975

PHYSICIANS CONTINUING EDUCATION SERIES

Dublin, Georgia

October 22, and November 26, 1974;

January 28, February 25, and March 25, 1975

Contact: Division of Continuing Education
Medical College of Georgia
Augusta, Georgia 30902

The Cleveland Clinic Educational Foundation

Postgraduate Course Schedule 1974-1975

MEDICAL TECHNOLOGY

September 19, 1974

CURRENT CONCEPTS IN RENAL DISEASE AND HYPERTENSION

October 9 and 10, 1974

MYOCARDIAL REVASCULARIZATION SURGERY, 1974

SELECTION OF PATIENTS, PITFALLS, AND
POSTOPERATIVE RESULTS

October 16 and 17, 1974

GASTROENTEROLOGY: CLINICAL PROBLEMS

November 20 and 21, 1974

PERSPECTIVES IN OPHTHALMOLOGY

December 4 and 5, 1974

CONTROVERSIES IN SURGERY

January 15 and 16, 1975

MEDICAL PROGRESS FOR THE FAMILY PHYSICIAN

January 29 and 30, 1975

SPORTS MEDICINE

February 5 and 6, 1975

PRESSURES IN ANESTHESIOLOGY

February 7, 8, and 9, 1975

SPECIAL TOPICS IN RHEUMATIC DISEASE

February 19 and 20, 1975

BLOOD BANK MANAGEMENT

February 26 and 27, 1975

ADVANCES IN UROLOGY

March 5 and 6, 1975

SEPTEMBER, 1974

MEDICAL PROGRESS AND ITS RELATIONSHIP TO DENTISTRY

March 12 and 13, 1975

RECENT PROGRESS IN CLINICAL CANCER

March 19 and 20, 1975

PRACTICAL NEUROLOGY

April 2 and 3, 1975

REFRESHER SEMINAR IN PEDIATRICS FOR PEDIATRICIANS AND GENERAL PRACTITIONERS

April 9 and 10, 1975

DIAGNOSTIC IMMUNOLOGY

April 23 and 24, 1975

NEW ADVANCES IN DERMATOLOGY

May 15 and 16, 1975

These programs in continuing medical education are accredited by the AMA and are acceptable for Category 1 credit toward the AMA Physician's Recognition Award.

For further information and detailed programs write to: Director of Education
The Cleveland Clinic Educational Foundation
9500 Euclid Avenue, Cleveland, Ohio 44106

* * *

The University of Michigan School of Public Health

The University of Michigan School of Public Health is offering a graduate program of study in Mental Retardation and Related Disabilities.

The postgraduate program is a 21-month course leading to an MPH degree and qualification in the field of Mental Retardation. Fees are regular school tuition in the School of Public Health; and terms begin in September and January.

For further information contact:

Arthur W. Fleming, M.D.

The University of Michigan

School of Public Health

Ann Arbor, MI 48104

Cancer Information

D-I-A-L A-C-C-E-S-S S-Y-S-T-E-M

WHAT? A valuable cancer education service through toll-free telephone calls that bring the most recent diagnostic and therapeutic information on specific neoplastic disease problems.

WHERE? In the Southern Medical Association area through co-sponsorship of The University of Texas System Cancer Center.

WHEN? Monday-Friday, 8:00 a.m. to 7:00 p.m., CDT; Saturday, 8:00 a.m. to 11:00 a.m., CDT.

Dial 1-800-231-6970 for list of specific topics, and procedures:

Write: Southern Medical Association

Cancer Information Center

2601 Highland Avenue

Birmingham, Alabama 35205

Ask for *DIAL ACCESS SYSTEM* catalogue.

Diabetes-Endocrinology Center At Vanderbilt Offers Tests

As a service to Middle Tennessee's practicing physicians and research scientists, Vanderbilt's Diabetes-Endocrinology Center is now able to provide certain diabetes-related diagnostic assays and tests through its newly established Diabetes Service and Research Support Laboratory, Room A-5203, in the Vanderbilt Medical Center.

Although this laboratory is "sponsored" by the Center, it is not supported by the Center's federal research funds and must, therefore, make modest charges for its services both to the Center's investigators and to physicians and researchers who are not directly affiliated with the Center.

For additional information, please call (615) 322-2197 or, at night, (615) 356-5397.

Annual Otolaryngologic Assembly

The Annual Otolaryngologic Assembly of 1974 will be held October 26 through November 1, 1974, in the Eye and Ear Infirmary of the University of Illinois Hospital. The Department of Otolaryngology of the Abraham Lincoln School of Medicine, University of Illinois at the Medical Center, offers a condensed basic and clinical program for practicing otolaryngologists under the direction of Emanuel M. Skolnik, M.D., with Burton J. Soboroff, M.D., as co-chairman. This program is designed to bring to specialists current information in medical and surgical otorhinolaryngology.

Interested otolaryngologists should direct their inquiries to the mailing address: OTOLARYNGOLOGY, P.O. Box 6998, Chicago, IL 60680.

Workshop on the Surgery Of Chronic Ear Disease

The Department of Otolaryngology of the University of Illinois, Abraham Lincoln School of Medicine, announces a Workshop on the Surgery of Chronic Ear Disease to be held October 2 through 4, 1974.

The workshop will deal with canal preservation in surgery for cholesteatoma. The technic of canal preservation will be taught by closed circuit surgical color television and temporal bone dissection. Seminars will be held to discuss the difficulties and complications of these technics.

Interested registrants may write directly to the Department of Otolaryngology, University of Illinois Hospital Eye and Ear Infirmary, 1855 West Taylor Street, Chicago, IL 60612.

Maternal and Child Health Program

The Maternal and Child Health Program of the University of California School of Public Health at Berkeley announces postgraduate courses of instruction for pediatricians, obstetricians, and other physicians interested in receiving training in the field of Maternal and Child Health. These programs all lead to the degree of Master of Public Health. Tax-exempt Fellowships are available, consisting of support for the trainee and his dependents, tuition and fees.

Program areas at the present time include nine-month programs in Maternal and Child Health, Day Care and the Preschool Child, Health of School-Age Children and Youth, and Maternal Health and Family Planning. Twenty-one month programs in Care of Handicapped Children, Comprehensive Health Care and Perinatology are also available.

Applications are now being accepted for the group entering September, 1975. For information, write to Helen M. Wallace, M.D., School of Public Health, University of California, Berkeley, CA 94720.

PAS and MAP Tutorial Sessions*

These two-day sessions teach representatives from *member hospitals* how to do medical audit studies using their own PAS system reports. PSRO health care legislation and the way CPHA resources can help both hospitals and PSROs are presented.

2- 3 October 1974

6- 7 November 1974

11-12 December 1974

PAS and MAP Institutes*

PAS and MAP Institutes are held for *nonmember hospitals and health care organizations* to present a comprehensive review of the various CPHA programs. The Institutes emphasize applications to the PSRO portion of PL 92-603.

5 December 1974

PAS and MAP Regional Workshops*

Regional workshops, open to both *member and nonmember hospitals and health care organizations*, teach how to do medical audit studies, using sample PAS and MAP reports. CPHA resources to help hospitals and PSROs are discussed.

26 September 1974—Washington, D.C.

8 October 1974 —Vancouver, British Columbia,
Canada

11 October 1974 —Honolulu, Hawaii

12 November 1974—Charlotte, North Carolina

14 November 1974—New Orleans, Louisiana

17 December 1974—Oklahoma City, Oklahoma

Course In Techniques for the Health Record Analyst

The health record analyst's role as an expert in *how* to evaluate the quality of patient care is explored in

*Academic Credit

Fully approved by AMA Council on Continuing Medical Education. Attendance applies toward AMA Physician's Recognition Award (Category 1).

Acceptable for elective hours from American Academy of Family Physicians.

All sessions are held at CPHA in Ann Arbor, unless otherwise specified.

For information, write Commission on Professional and Hospital Activities, 1968 Green Road, Ann Arbor, MI 48105.

detail in these intensified sessions. They are open to *member and nonmember hospitals* and health care organizations. The PAS system reports are used to teach the techniques of health record analysis.

16-20 September 1974

7-11 October 1974

11-15 November 1974

16-20 December 1974

Coding and Abstracting Institutes

Open to *all medical record personnel using H-ICDA*, these one-day sessions are designed to review the basic principles of H-ICDA coding. Methods of PAS abstracting are also discussed.

8-10 October 1974 —Chicago, Illinois

19-21 November 1974—Los Angeles, California

3- 5 December 1974 —St. Louis, Missouri

National Conference on Advances In Cancer Management

**AMERICAN CANCER SOCIETY—NATIONAL
CANCER INSTITUTE**

PART I

TREATMENT AND REHABILITATION

November 25-27, 1974

Waldorf-Astoria Hotel—New York City

PART II

DETECTION AND DIAGNOSIS

May 1-3, 1975

The Denver Hilton—Denver, Colorado

**AMERICAN CANCER SOCIETY'S
NATIONAL CONFERENCE ON
GYNECOLOGIC CANCER**

September 18-20, 1975

Marriott Hotel—Philadelphia, Pennsylvania

**AMERICAN CANCER SOCIETY—NATIONAL
CANCER INSTITUTE
EIGHTH NATIONAL CANCER CONFERENCE**

September 20-22, 1976

Regency Hyatt Hotel—Atlanta, Georgia

These professional educational conferences will be acceptable for Credit Hours in Category I for the Physician's Recognition Award of the American Medical Association and for Elective Hours by the American Academy of Family Physicians.

Course in Laryngology And Bronchoesophagology

The Department of Otolaryngology, Abraham Lincoln School of Medicine, University of Illinois and the Eye and Ear Infirmary of the University of Illinois Hospital, will conduct a continuing education course in Laryngology and Bronchoesophagology, November 18-23, 1974. The course is limited to twenty physicians and will be under the direction of Paul H. Holinger, M.D.

Interested physicians will please write directly to the Department of Otolaryngology, Eye and Ear Infirmary, 1855 West Taylor Street, Chicago, IL 60612 60612.

University of Kentucky College of Medicine

The University of Kentucky College of Medicine will present two identical, comprehensive reviews designed in part to prepare family physicians for the annual ABFM examination scheduled for late October. Approximately 70-74 topics will be presented by University of Kentucky and guest faculty.

The Fifth Family Medicine Review will be offered September 15-21, 1974, and again on October 6-12, 1974, at the University of Kentucky Medical Center. Program Chairman: Frank R. Lemon, M.D. Registration fee: \$195. Fifty hours of AAFP credit have been requested.

For further information contact:

Ronald D. Hamilton, M.D., *Director*

Continuing Education

College of Medicine

University of Kentucky

Lexington, KY 40506

Fifth Annual Autumn Pediatric Symposium Sept. 20-21, Vanderbilt Children's Hospital

The Children's Hospital of Vanderbilt University announces the Fifth Annual Autumn Pediatric Symposium, to be held Sept. 20-21. The topic will be Pediatric Gastroenterology and Nutrition—*Diagnosis and Management of Common Problems*.

Guest faculty will include William Schubert, M.D., Department of Pediatrics, University of Cincinnati School of Medicine, Cincinnati, OH; Phil Sunshine, M.D., Department of Pediatrics, Stanford University Medical Center, Palo Alto, CA; and Harvey Sharp, M.D., Department of Pediatrics, University of Minnesota Medical Center, Minneapolis, MN.

For Information, write:

Harry L. Greene, M.D.

Department of Pediatrics

Vanderbilt University School of Medicine

Nashville, TN 37232

Forum on Health Care Issues: HMO's, CHP, PSRO's, NHI

National Graduate University, as part of its continuing medical education program, announces its Forum on Health Care Issues on October 1-3 for physicians, dentists, hospital personnel, and other health care and community leaders. Health Maintenance Organizations and Comprehensive Health Planning will be discussed the first day.

Professional Standards Review Organizations will be the topic of the second day, and on the third day, Senator Russell B. Long has been invited to discuss his National Health Insurance legislation.

The complete program and registration information may be obtained from Dr. Jean K. Boek, Director, Division of Special Studies, National Graduate University, 3408 Wisconsin Ave., NW, Washington, DC 20016 (202-966-5100).

The Upper Functional G.I. Disorder

The Pseudo-ulcer

journal

OF THE
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State of Tennessee Pilot Renal Screening Program

STANLEY E. VERMILLION, M.D.

Introduction

The State Renal Disease Committee, a division of the Chronic Disease and Rehabilitation Service of Public Health, allocated a limited amount of money in January, 1973, to study the feasibility and practicality of a county screening program to pick up overt renal disease. That study was the Washington County Renal Pilot Screening Program, undertaken during the months of January and February, 1974. All Washington County second grade school girls were screened for bacteruria utilizing Microstix® (Ames) for quantitative culturing of all urines, and for hematuria, glycosuria, proteinuria using Hema-Combistix® (Ames). This project was undertaken utilizing local civic volunteer assistance in cooperation with the local county health department, East Tennessee State University B.S. Degree nursing students program.

The program's primary aim was to attempt to detect kidney disease manifested by hematuria, proteinuria, glycosuria, and bacteruria. Second grade school girls were picked because of previous studies demonstrating this to be one area of relatively high pickup of urinary abnormalities. It is also the earliest age that adequate cooperation in obtaining sterile urine samples can be expected. The success of this program required the cooperation of the School System, the Board of Education, the medical community, State Renal Advisory Committee, and State Public Health System.

Testing Procedure

A very important pre-testing education of the school children and their families was undertaken by the Washington County Health Educator. Leaflets on occult renal disease were sent home

with each child, with a permit card to be signed and returned to the school by the parents of each child who was to participate in the program. The program was also explained to the Board of Education and to the school nurses. Wide acceptance of this program was our experience as documented by a 96% return rate of the permission slips.

Approximately two schools per day were screened utilizing eight volunteers in classes numbering less than 50 girls. If there were greater than 50 girls in the combined second grade classes, 12 volunteers were utilized. Civic organization volunteers recorded all data and made sure the containers were labeled properly. The girls were sent into the rest room by fours, where the genital area was cleaned with PhisoHex cotton balls by nursing students or school nurses, after which a sterile cotton ball was used to dry the area. A mid stream urine sample was then collected by a nurse. This sample was immediately cultured utilizing the Microstix, and incubation was begun at the school with a portable incubator. The urine was then checked with a dip stick for albumin, sugar, and blood. The child's blood pressure was taken before she was sent back to the class room. Cultures were read by the attending physician within 24 hours after the incubation period began. All positives of greater than 10,000 count had two subsequent urine cultures utilizing the same technique. Similarly, all patients with positive albumin, blood, or sugar had a repeat urine test. At the conclusion of the study all children with positive urine cultures with colony counts greater than 100,000, any child with positive albumin of greater than 3+ (greater than 100 mg per 100 ml), and all children with blood pressures of systolic greater than 130 and a

diastolic greater than 90 were seen in a Renal Clinic by the author.

Results

Five hundred twenty-eight school girls, representing 96% of the school girls in the population area, were screened for urinary abnormalities. Approximately 70% of these children came from rural schools and the other 30% came from Johnson City schools.

Bacteria

Eighty-eight, or 16%, of the children had urine cultures positive on two occasions greater than 10,000 colony counts. When retested, and including only those girls that had colony counts greater than 100,000 on two cultures, the number was reduced to 25 or 4.7%. (Table 1) If we consider only colony counts of greater than one million as being significant level, the number is reduced to 1.9% of the total.

All the children with positive urine cultures were seen by the attending physician in a clinic and urine samples were personally reviewed. Of those who had colony counts of greater than 100,000 (25) only seven of these had associated pyuria. Of these only four had positive urinary tract infection histories according to the mother.

It is generally considered an infection is present in over 95% of people whose urine contains greater than 100,000 bacteria per milliliter.¹ Dr. Kunin found that approximately 20% of these children who have bacteruria on routine school

Table 1
Positive Cultures

Number Tested	528	1st	2nd
Number		88	25
Percentage		16%	4.7%

testing had other urological abnormalities on investigation. This concept of significant bacteruria is meant to distinguish the bacteria that actually multiply in the urine from urethral, fecal, and vaginal contamination, from those of urinary tract origin. Criteria of 100,000 or more organisms per milliliter are generally considered significant and should differentiate between these two types of bacteria. Once these children were identified by the attending physician, they were subsequently referred to their family physician or pediatrician, or if they had no physician, they were sent with a referral letter to a physician.

We would hope that the majority of these girls would be checked for urinary tract abnormalities. The generally recommended procedure to be followed was, if the culture remained positive, they should be treated for two weeks, with an appropriate antibiotic, followed in two weeks by a repeat culture. If the culture is sterile, periodic followup alone is needed. If the culture is positive, further tests of renal function, including IVP, should be done. If the IVP shows an abnormal pyelogram, which may include a small kidney on one side or scars from previous infection, then followup with voiding cystograms is generally indicated. Since it is very difficult in this clinical situation to assure any degree of uniformity of testing procedures when there is a great number of physicians involved on referral, no definite followup information is available at this time.

Proteinuria

Fourteen girls (2.8%) were found to have proteinuria on initial testing. When retested, using early morning samples, only five girls in the study population were found to have a 3+ albumin or greater. (Table 2) This is considered to be a significant albuminuria, and these children were all referred on to the family physicians. This represented approximately .94% of the study population, which correlated fairly well with other groups tested. No attempt was made to determine whether the child had exercised prior to the initial urinalysis.

No positive, undiagnosed diabetes was found

Table 2
Positive Albumin

	Number Tested	1st	2nd
Tenn.	528	2.8%	.94% (5)
Ky.	12,684		.63%

on routine glucose testing. Several children had blood pressures of greater than 130/90, and these also were referred for followup by their family physician. Table 3 presents the average blood pressure of this age group study.

Table 3
Blood Pressure

Average	95/68
Range	140 Systolic 48 Diastolic

Discussion

It has generally been found in other large studies that asymptomatic bacteruria is present in a significant population of school children. This project showed a significantly higher percentage of positives than did other large studies. (Table 4) No definite explanation for this is available, though it is assumed that we are finding higher colony counts because of our technique for obtaining sterile urines or because our method of culturing is more sensitive than that used by others. Our statistics correlate very well with theirs if we consider a colony count of one million as significant, instead of the generally accepted level of 100,000 per ml.

No attempt was made by our group or other groups to identify the type of bacteria. It has generally been found in the past and certainly

Table 4
Bacteria in School Children

	Number	Percent	Age
University of Dundee—Scotland	5,117	1.6%	5
University of Virginia (2nd)	1,286	.87%	7
Edmonton	23,427	2.3%	5-14
Kentucky	18,400	1.8%	5-14
Johnson City	528	4.7%	7

was confirmed by this school project that bacteruria in school girls is a relatively common phenomenon that is generally asymptomatic. It is also the general feeling of the renal physicians that treatment of urinary tract infections, especially when associated with severe reflux, appears to prevent renal atrophy, hypertension, and chronic renal failure.^{2,3} The value of early detection of these abnormalities, therefore, is obvious. Nearly 2/3 of the children found by this survey to have positive infections had no previous knowledge of any urinary tract infections. In addition, many of the children who had had known urinary tract infections, and were found to be positive on our survey, had no symptoms at the time they were screened. The incidence of urinary tract infections as reported by us was slightly higher than others. I am very confident of the validity of our testing procedure, as it was

carefully supervised by a physician and RN's throughout the entire program.

In any screening survey of this type, cooperation of the parents and local medical societies is crucial. It is essential to have several months of planning and coordination of all necessary personnel prior to implementing the program. In this survey 96% of the parents allowed their children to be tested, and of those tested over 99% were brought into the Renal Screening Clinic for followup. This good response rate reflects the degree of interest engendered by the school system, parent education programs, and community education programs. The positives, after being screened by the author, were referred to the private physicians with a letter noting the abnormality. The referring physicians, by and large, accepted this quite well.

It is my contention that the renal screening project was very significant. The percentage of occult renal disease was also highly significant. The program was funded with only \$1,500, a very small amount, especially when one considers the result of undetected, undiagnosed renal disease that goes on to renal failure. If only one case out of such a population group can be prevented from having chronic renal disease or severe hypertension, one can well justify the amount of money spent.

106 East Watauga Ave.
Johnson City, Tenn. 37601

References

1. Kunin, CM: *Epidemiology and Natural History of Urinary Tract Infection in School Age Children*. *Ped Cline North Amer*, vol. 18, number 2, pp 509, 528, May, 1971.
2. Silverburg, DS, Allard, MJ, et al: *City-Wide Screenings for Urinary Abnormalities in School Girls*. *Can Med Jnl*, vol. 109, pp 91, 95, November 17, 1973.
3. Savage, DCL, McHardy, WM, Dewar, DAE, and Fee, WM: *Covert Bacteriuria of Childhood*. *Arch Dis Child*, vol. 48, p 8, 1973.

Appreciation is expressed to Bette Gernt, Washington County Health Educator, the Johnson City Junior Service League, and the Washington County School System whose work and cooperation were necessary for the success of this program.

Loss and Mourning: Some Implications For Psychotherapy

JACK M. BARLOW, Ph.D.*

Out of the essential symbiotic attachment a child has with his mother evolves a pattern for growth, regression, and regrowth. This developmental pattern can be conceptualized globally as the progressive dissolving of this first attachment and the simultaneous establishment of new relationships. From infancy we are forced repeatedly to face this deeply personal paradox of losing past attachments as a consequence of growing up. The manner in which a person, as a child, learns to master the intense anxieties and ambivalent feelings aroused by these early losses (or loss of love) determines, to a great extent, the way in which future losses will be handled.

Many authors have addressed themselves to the developmental issue of significant early object loss and its subsequent effects. (Freud, 1917; Bowlby, 1973; Mann, 1973; Greenberg, 1963; Winnicot, 1965, and Guntrip, 1969 and 1971). James Mann (1973), a psychoanalyst, writes of the problem of early object loss in terms of the maturational experiences during the first three years of life, a period he calls the separation-individuation phase of personality development. Shortly after birth the child begins to move from mother, physically and emotionally. His experience of this separation is obviously (and empirically) anxiety arousing, most confusing, and always ambivalent. The actual period of separation-individuation, though most conspicuously demonstrated by the child's ambivalence in venturing out beyond the proximity of mother, is highlighted by prototypical crisis points which are usually enshrined as initiation-termination phases in some theories of development; e.g., the oral stage, social attachment periods, the anal phase, a locomotive-genital phase, the oedipal stage, etc. Each of these "phases" occurs within the context of the child's progressive separation from mother. This issue of maternal loss becomes a backdrop for the child's concerns with other losses; e.g., the breast, mother's presence, a favorite teddy bear or toy, feces, or castration.

Individuation is a natural consequence to the

appropriate resolution of separation anxiety and ambivalence. The child's experience with maternal loss contributes to the evolution of an internal object world which mirrors the deteriorating external symbiotic tie. Out of these internal representations of child and mother there eventually evolves a stable sense of self we commonly call "I" or "me" and an enduring awareness of others as distinct from self. The child's capacity to tolerate separation anxiety, albeit in small appropriate doses, clarifies these internal objects by permitting him the experience of learning to exist apart from mother. An internal object world not only increases the child's sense of reality (by contrasting and discriminating internal and external events) but also provides the means whereby the child can keep mother with himself in fantasy as he continues in the process of growing up. An external representative of this internal process is illustrated in a child's use of and need for security objects; thumbs, teddies, "lolla's," blankets, objects to suck or hold.

The child's progressive differentiation of internal objects of self and mother is eventually formalized into what Mann calls a "fixed central unconscious statement"—a pervasive sense about one's self in relation to others. This statement takes the form, "How much do I need others in order to exist?" Most people, with adequate mothering and rearing, trust their need for and enjoyment of others. They prefer interpersonal contacts to isolation and if deprived of these relationships are able to get over the loss and seek out new relationships.

The process by which most people "get over" a personal loss and develop new attachments is called "mourning." Grief after death serves as a prototypical experience for resolving all separations and loss. The alternating states of resentment, anger, guilt and sadness which we associate with mourning serve the grieving person by affording him a vehicle to assess realistically his loss. Usually the process occurs within an interpersonal milieu of relatives and friends who support the bereaved person and respond to his grandiose appraisals and severe condemnations of the lost person. But most importantly they provide an

From the Helen Ross McNabb Community Mental Health Center, Knoxville, Tenn.

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interpersonal reality (transitional object relationships) from which the grieving person slowly moves as he establishes new love objects. The development of stable, nonpathological relationships signals the completion of mourning. In other contexts we call this process disillusionment and it is hardly stretching a point to compare the grief after death with the dissolving of ideals as one grows older. In either case the grieving person gives up and "gets over" his loss (in accord with reality) and begins to develop new relationships. This however, is the process typical of most.

Unfortunately, for some a frightening sense of self in relation to others emerges out of their early development. Actual loss is experienced as catastrophic. In the most extreme of these cases external loss leads to a rapid retreat inward, a desperate attempt to maintain some sense of object attachment with an internal object world when external reality appears devoid of hope. This psychotic retreat is often maintained at a great cost and impoverishment to actual interpersonal relationships. But for the psychotic person it is a compromise far superior to the stark terror of regressing into schizoid detachment—a tortured aloneness with no attachments, no relationships (Guntrip, 1969). These people appear to live and act as if they are unable to exist without the "constant and continuing presence of a sustaining person." This unconscious appraisal derives from a seriously disturbed early relationship between mother and child.

For Mann, the crisis of separation-individuation (loss and recovery) is a central issue which faces people throughout life. Some losses are inevitable—a product of maturation. Weaning, oedipal loss, puberty, work, college, military life, marriage, birth of children, old age, and one's own death are some crisis periods of separation-individuation. Most people are able to respond adequately to these crises, especially if they avail themselves of the culturally prescribed rituals or "rites of passage." Along with these maturational crises are other, unplanned possibilities for loss. Loss of money, job, possessions, power, friends, life, or self-esteem can also precipitate separation-individuation crises. The manner in which maternal separation was handled early in life often determines the way each successive developmental crisis or situational loss will be handled. Later losses often revive primitive separation anxieties, the intensity of which is usually determined by (1) the degree of early deprivation, (2) the origi-

nal style of managing early separation anxiety, (3) the significance of the present loss to the person, and (4) the acquired styles of handling separation-individuation crises subsequent to the original dilemma. More often than not these crises constitute the precipitating stresses which impell people to seek psychiatric treatment.

One way in which to survey a patient's distress is to structure the intake or crisis interview around the question, "Who or what has this person lost (or does he fear losing) that precipitates his need for help now?" The answer to this question has diagnostic and prognostic implications which bear directly on the planning of psychotherapeutic treatment.

Diagnostically, the present loss must be evaluated in terms of (1) the actual object lost, and (2) the significance of this loss to the patient. Often a minor loss may precipitate a bizarre, even psychotic, reaction in a fragile personality. In these cases the premorbid history typically reveals unresolved personal loss and/or a seriously disturbed mother-child relationship during the first years of life. An illustration of such a response is the case of a 52-year-old man who became psychotically depressed following the death of his pet dog. He had been admitted to a psychiatric hospital on several occasions, usually following the death of a relative. His mother was hospitalized twice for schizophrenia during the first four years of his life. This man made remarkable recovery during his most recent hospitalization after he recalled vivid memories of the many losses throughout his life. In this case the significance of unresolved personal loss outweighed and influenced the actual loss.

Conversely, a major loss may precipitate a diagnosable psychiatric condition of lesser proportions. The death of a relative, friend, parent or spouse, divorce threat or action, arrest, a new school or home situation, a new job, the loss of power or money, a promotion, loss in self-esteem, a violent fight, or the loss of a valued object can evoke an unwarranted grief, a somatic reaction, an antisocial or deviant act, or anxiety response. Often these neurotic responses are maintained for years and are evidence of a serious problem in handling more significant losses earlier in life. An excellent example of this reaction is the case of a 24-year-old man who sought treatment because of a phobic concern about heart disease. His phobia first occurred when he noticed several people looking at him and laughing. He assumed they were joking about his being thin (loss of

esteem and fear of appearing weak). He shrugged this off initially but later began to obsess over his lifelong concerns about being thin. These ruminative thoughts panicked him and set in motion an anxiety reaction. It was his shortness of breath and pounding heart he took for a cardiac condition. He eventually associated his fears with the feelings surrounding his mother's death 13 years earlier and his ambivalence about her repeated hospitalizations for radiation treatments during the four years prior to her death. His anticipated loss of life from heart failure led to his seeking help and eventual recovery.

Prognostically, the patient's reaction to the precipitating loss must be evaluated in a similar fashion. Seriously pathological reactions to minor or major losses would necessarily predict poorer prognoses. Vice-versa, less serious (non-psychotic) reactions are more likely to remit, and the patient has a better chance for satisfactory readjustment (often back to his premorbid adjustment).

For treatment and treatment planning the most recent loss must be the first concern for patient and therapist. Mann proposes a time limited psychotherapeutic technique which seeks an immediate response to the current crisis. In this technique, the therapist identifies for the patient a central problem based upon the patient's complaints and a thorough historical review. A solution to this problem, within a specified time frame, is sought in the context of the patient's emerging anxieties about separating from a helpful, overvalued person, the therapist. Greenberg (1963), another psychoanalyst and researcher, also sees a correspondence between psychopathology and problems in mastering separation early in life. He illustrates how minor disruptions in intensive psychotherapy can, and most often do, revive intense separation anxieties within the context of transference. Handling the patient's reactions to the unavoidable disruptions in therapy becomes, for Greenberg, an opportunity for the patient to master a repeatedly troublesome experience and to "get over" past losses never faced.

Treatment begins with the most recent loss as

a central focus, and proceeds by helping the patient to "mourn." All the affective aspects of the patient's loss are surveyed slowly and carefully. "Cure" in this case is appropriate grieving, a process exhibited by both anger and sadness towards the lost object and a reorientation to new objects. Termination becomes the crucial issue for further progress since the end of therapy constitutes another loss. The patient must mourn this loss and sense that the therapist is willing and confident in the patient's ability to separate and be independent. This attitude in the therapist is derived from a realistic appraisal of the patient's maturity which has developed from the therapeutic relationship.

In every psychotherapy, then, the issue of loss must be confronted in a threefold fashion. First, the present loss is of concern. The patient must be helped to master and mourn this loss adequately. Sometimes this takes a great deal of time. Second, previous losses, which may be of greater significance to the continuation of recurring distress may be dealt with in a longer and more intensive psychotherapy (depending on the patient's preference). Finally, and in either case, patient and therapist must be concerned with the question of separation-individuation as it arises within the therapy relationship. Mastery and "mourning" of the anxiety and ambivalence related to the patient's fears of losing his therapist, especially during the termination period, are probably the most crucial and therapeutic aspects of the therapy process.

Bibliography

- Bowlby, J. *Attachment and Loss*, Vols. I and II. New York: Basic Books, 1973.
- Freud, S. Mourning and Melancholia, 1917, *Collected Papers*, Vol. IV, Hogarth Press: London, 1953.
- Greenberg, R. Manifestations and Management of Patient's Reactions to Disruptions of Psychotherapy. *Comprehensive Psychiatry*, vol. 4, No. 5 (October), 1963.
- Guntrip, H. *Schizoid Phenomena, Object Relations, and the Self*. New York: International Universities Press, 1969.
- Mann, J. *Time Limited Psychotherapy*. Cambridge: Harvard University Press, 1973.
- Winnicott, DW. *The Maturation Process and the Facilitating Environment*. London: Hogarth Press, 1965.

On Psychiatric Clinic Referral

BY ROBERT T. CORNEY, M.D.

Epidemiological field studies of the prevalence of mental illness, in particular the "Midtown Manhattan" study of Srole, Langner, Michael, et al¹ and the "Stirling County" study of Leighton, Harding, Macklin, et al² have shown that a significant proportion of the population is psychiatrically impaired. The rates vary depending on the specific operational definitions of impairment, but all studies indicate that almost 20% of the population is impaired to a marked degree. The proportion showing mild impairment runs as high as 80% in some studies.

Most medical practitioners recognize that a part of their practice consists of persons whose predominant problem is of an emotional nature. Some have speculated that up to one-half of a general medical practitioner's caseload is composed of patients whose problem is primarily psychological. Despite this, relatively few of these patients are referred to a psychiatrist. A survey of a randomly selected sample of physicians in clinical practice showed that on an annual basis, only one patient in one hundred was referred for psychiatric or mental health care (including psychiatric hospitalization).³

To many physicians, patients considered candidates for psychiatric referral are likely to be viewed as having a psychiatric diagnosis, that is they are suffering from a neurosis, psychosis, or from one of the personality disorders. The formal psychiatric education of most physicians occurred during medical school and consisted for the most part of lectures about the major psychiatric diagnostic entities and a practicum experience during a clinical clerkship on a psychiatric inpatient service. In the latter setting, the student's experience is with the sickest, most disabled type of psychiatric patient. That psychiatric referral might encompass another class of patients is rarely discussed or considered.

The results of a survey of a cohort of patients newly referred to the psychiatric clinic of a university hospital highlights another perspective. These patients, all ambulatory, were seen either as a result of their own direct request or at the request of one of a number of other sources, in-

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cluding their family, their personal physician, and their friends.

The Adult Psychiatric Outpatient Clinic of the Vanderbilt University Medical Center provides psychiatric evaluation services as well as a variety of psychiatric treatment modalities. The clinic, predominantly staffed by second and third year psychiatric residents, is available to all persons 18 years and above on a fee schedule which is flexibly scaled to the patient's income. Most patients served in this clinic reside within the Middle Tennessee Region, primarily in Nashville-Davidson Metropolitan area. Referrals to the clinic are accepted from all sources, including self-referral.

Table I lists the sources of referral to the clinic during the months of July, August, and September, 1973. During this three month period a

Table I
Referral Sources—Vanderbilt Adult
Psychiatric Outpatient Clinic
July 1, 1973-September 30, 1973

	Number of Referrals*	Percent of Referrals
1. Self	107	60%
2. Vanderbilt University Medical Center	26	14%
Emergency Room	11	
Inpatient Psychiatric Unit	7	
Other Outpatient Clinics	6	
Inpatient Medical Unit	2	
3. Family	24	13%
4. Private Physicians	10	6%
5. Friend	3	2%
6. Other	9	5%
TOTAL	179	100%

*Means patient attended initial appointment. Approximately 25% of patients fail to keep their initial appointment after referral.

total of 179 new patients were seen for initial psychiatric evaluation by one of the clinic staff members. Sixty percent of these patients were self-referred, that is the individual called to make his or her own appointment. Fourteen percent of the patients were referred by one of the other clinical divisions of the Vanderbilt Medical Center, over a third of these occurring as a follow-up to an emergency visit. In only 6% of the cases was the referral made by a physician in private practice.

The relative proportions of the different referral categories (viz. self-referred, private physician referred, etc.) remains the same if a larger sam-

PSYCHIATRIC REFERRAL/Corney

ple of months is examined. For example, during the six months, July 1973 through December 1973, a total of 347 new patients were seen, of whom 64% were self-referred, 13% referred from Vanderbilt Medical Center, and 6% private physician referred.

A retrospective survey was made of the patients' reasons for their referral to the clinic during the three month period, July through September, 1973. The survey was made by reviewing the intake information sheet on each patient, which briefly lists reason for referral in the patient's own words, as well as clinical evaluation notes and reports of the psychiatrist who did the intake examination. In cases where the immediate precipitating stress was unclear, or of a multiple nature, a general, not a specific classification was used. For example, one patient's complaints seemed to encompass many areas of stress; health problems, social problems, as well as a serious marital problem. In this case, we considered the precipitating stress to be unknown. In many cases we used the patient's own description of what the immediate precipitant was, provided this was supported by the examiner's concurrence. In other cases, we relied on our interpretation of the various data sources available.

Table II lists the results of that survey. In 30%

Table II
Precipitating Stresses Leading to VAPOC Referral
July, August, and September 1973

Precipitating Stress Event	Number of Patients
Marital (includes separation, divorce, marital conflict, and recent marriage)	54
Family (includes family conflict, trouble with parents, and trouble with son or daughter)	24
Personal injury or illness	13
Trouble with boy or girl friend	10
Sexual problem (independent of marriage)	6
Change in family member's health	3
Death of spouse	2
Other stress (no single item with more than 2 patients)	23
Unknown stress	23
Continuation of treatment	21
TOTAL	179

of the cases, a marriage-related problem was the apparent life stress event which precipitated the clinic referral. In another 13% of the cases, the precipitating stress was family related (i.e., resulting from conflictual family interaction). If these two categories are combined, marriage and family related precipitants, and the ten cases which

stemmed from disruption of a close, marriage-like, girl-boy friend relationship added, we have 49% of new clinic referrals. An additional 11% of cases referred during this period were for continuation of treatment after a period of hospitalization. It is thus clear that more than half of the new clinic patients were seen because of symptoms and disabilities stemming from either a marital or family problem.

DISCUSSION:

As we have shown, 60% of new psychiatric clinic admissions during a three month survey period initiated their own referral to the clinic and of the total, over half had this initial visit apparently precipitated because of a marital or family predicament. While the Vanderbilt Adult Psychiatric Outpatient Clinic does offer family treatment as one of the therapy modes utilized, we do not entertain any special reputation, or unique expertise, as a marital or family counseling agency.

Why so few patients are referred to a psychiatric clinic by their own physician is one of several questions raised by our data. This is puzzling for it seems certain that most clinical practitioners have caseloads heavily weighted with psychologically impaired patients. Another question raised is why psychiatric clinic precipitants' first visit are so skewed toward marital and family problem events. I shall discuss each of these questions in turn and then examine them together in a parsimonious fashion.

The first question is obviously one of a complex nature which cannot be answered fully in this brief paper. For many physicians, referring a patient to a psychiatrist is not a step undertaken lightly. The patient likely has a grave emotional problem with attendant disturbing symptoms for the physician to consider this step in the first place. The patient may be resistant to psychiatric referral and the physician may not wish to insist upon a so obviously unpopular recommendation. In addition, many physicians may be skeptical about the efficacy of psychiatric treatment.

Many patients may now be referring themselves instead of requesting this of their physician. That 73% of new patients referred to the Vanderbilt Adult Psychiatric Outpatient Clinic were either self-referred or referred by a family member, and only 6% were referred by a private medical doctor, lends weight to that hypothesis. The heightened visibility and availability of mental health treatment programs in recent years has

encouraged many to seek help for their emotional problems on their own. In other cases, a patient's apparent self-referral occurs subsequent to a suggestion made to them by their physician.

The second question, that is why so many patients are presenting at a psychiatric clinic due to marital and family problems, is illuminated by recent work in the field of stress research. A number of studies indicate a significant relationship between stress, especially as depicted by different "life crises" and the onset of physical or psychiatric illness.^{4,5,6} Several investigators, notably Holmes and Rahe,⁷ and Paykel and associates⁸ have developed "life stress" scales designed to rank and quantitate the stressful effects of ordinary life events (i.e., move to another city, death of a family member, divorce, etc.). These scales are based on mean ratings given by respondents to a wide array of life happenings, both "desirable" and "undesirable." Individuals known to be ill as well as others who were well (asymptomatic) have been included as raters in the development of these scales.

It is an invariable finding that marriage and family related predicaments rank among the "most stressful" life events. For example, on the Holmes and Rahe Social Readjustment Rating Scale,⁷ which has a total of 43 items ranked in order of stress provocation, the first three, and six of the top ten ranked items relate either to the marital relationship or to the family. The first two, and five of the top ten events from the scale developed by Paykel et al, also concern undesirable events in marital and family relationships (i.e., divorce, death of a child or spouse, etc.).⁸

The finding that "undesirable" marital and family life events rank so highly as precipitants of illness, both physical as well as emotional, is

entirely consistent with crisis theory, which tells us that events leading to that state of temporary disequilibrium characterizing crisis most often occurs in a relationship with a significant other human being.

With these data in hand, it is not unreasonable to speculate that what our patients are doing is seeking professional assistance for undesirable, though common, life predicaments in a more direct fashion. Seeking psychiatric help for marital and family problems was appropriate in the patient's view and also in ours, especially since treatment emphasis in psychiatry has swung more to the direction of briefer methods. Such new techniques permit effective care for a greater range of problems than in the past.

References

1. Srole, L, Langner, TS, Michael, ST, Opler, MK and Rennie, TAC: *Mental Health in the Metropolis: The Midtown Manhattan Study*. McGraw-Hill, New York, 1962.
2. Leighton, DC, Harding, JS, Macklin, DB, MacMillan, AM, and Leighton, AH: *The Character of Danger*. Basic Books, New York, 1963.
3. Clifton, PM: A Survey of the Psychiatric Referral Practices of Private Medical Practitioners in North-Central Virginia. Unpublished student research project, University of Virginia School of Medicine, 1969.
4. Hinkle, LE, Jr. and Wilson, RN, editors: *Explorations in Social Psychiatry*. Basic Books, New York, 1957, pp. 105-137.
5. Rahe, RH and Arthur, RJ: Life Events Surrounding Illness Onset. *J Psychosom Res* 11:341-345, 1967.
6. Paykel, ES, Myers, JK, Dienelt, MN, et al: Life Events and Depression: A Controlled Study. *Arch Gen Psychiat* 21:753-760, 1969.
7. Holmes, TH, Rahe, RH: The Social Readjustment Rating Scale. *J Psychosom Res* 11:213-218, 1967.
8. Paykel, ES, Prusoff, BA, and Uhlenhuth, EH: Scaling of Life Events. *Arch Gen Psychiat* 25:340-347, 1971.

* * *

Clinical Center Studies of Patients With Anorexia Nervosa

Corporation of physicians is requested in the referral of patients with anorexia nervosa for a study being conducted by the National Institute of Child Health and Human Development, Reproduction Research Branch at the Clinical Center, National Institutes of Health, Bethesda, Maryland.

Patients will be entered into a double-blind treatment protocol with cyproheptadine with concomitant endocrine evaluation.

Upon completion of the study, patients will be returned to the care of their referring physicians who will receive a summary of the findings.

Physicians interested in having their patients considered for admission may write or telephone:

Dr. D. Lynn Loriaux
National Institute of Child Health and Human Development
Clinical Center, Room 12N206, N.I.H.
Bethesda, Maryland 20014

case report

The Effect of Prison Life on Gradual Withdrawal of Methadone Maintenance

HARVEY ASHER, M.D.

In working with heroin addicts who subsequently enter a methadone maintenance program, one sees the great physical difficulty patients have in withdrawing from methadone. Many of their symptoms seem to last for weeks after the initial withdrawal. For this reason, among others, many addicts need to be put back on the maintenance program. It has been suggested that abrupt withdrawal of methadone does not produce excruciating subjective and objective symptoms usually mentioned concerning heroin withdrawal.¹ Isbell, et al, described only mild withdrawal effects after abrupt cessation of dosages higher than those now in clinical use.² The fact that prolonged withdrawal causes as much discomfort as it does raises many questions.

Recently, three patients who had difficulty withdrawing from methadone gradually in outpatient and inpatient facilities, were incarcerated in a local jail. The jail authorities permitted methadone to be brought in to these three young men and they gradually withdrew over a few weeks' time. In all three, the same phenomenon appeared, although none of them knew of the others' symptoms. All three had a similar response; bewilderment concerning how minimal their symptoms were compared to previous withdrawals. All three were in an enforced situation and anticipation of getting drugs was eliminated. These were county jails and obtaining hard drugs was difficult.

Case #1: A 21-year-old white man with a two-year history of heroin addiction had been withdrawn twice previously on thirty-day programs. Each time, when he would reach 15-20 mg., marked symptoms would begin. Physically, he looked pale and agitated. He would complain of insomnia, anorexia, and abdominal cramping. On one occasion, he was hospitalized for his withdrawal

symptoms. His symptoms had become so severe during this time that large doses of Haldol and other sedatives would not relieve his insomnia and other symptoms. He was then placed on a methadone maintenance program for six months. He was on approximately 120-150 mg. doses during this period. He was withdrawn from 120 mg. in a one-month period. A follow-up visit to my office revealed his abdominal cramping had been minimal and his insomnia lasted but a few nights. In general, he was surprised how easy his withdrawal was.

Case #2: A 22-year-old white male Navy veteran had two inpatient withdrawals at a Veterans Administration Hospital. He had also had one 30-day outpatient withdrawal on methadone. The onset of significant symptoms, he claimed, would lead back to heroin use. He was on methadone maintenance for six months. His average dosage was approximately 100 mg. a day. He was incarcerated for an old offense and withdrawn in a 30-day period. Subsequent visits to my office revealed a healthy physical appearance and a subjective astonishment by him concerning his minimal withdrawal symptoms.

Case #3: A 21-year-old white man had been addicted for approximately two years to heroin. He had previously had two outpatient withdrawals on methadone 30-day periods. He eventually started on the methadone maintenance program, averaging 60 mg. a day. He himself cut his dosage from 100 mg. to 60 mg. a day. He was subsequently incarcerated. Follow-up visits to my office after his month-long withdrawal showed minimal subjective discomforts. Physically, he looked and felt better.

Comment: All three young men repeatedly had difficulty withdrawing from methadone. Inpatient or outpatient, they complained of excruciating pain, insomnia, anorexia, and other symptoms, even on gradual withdrawal. Surprisingly, sudden withdrawal in jail produced milder, gradually subsiding symptoms. One wonders if the medical profession has ignored the classic 1948 work of Isbell and the more recent article by Lepkowitz concerning withdrawal symptoms. One wonders if we tend to overprotect and overtreat methadone withdrawal patients.

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Traumatic Diaphragmatic Hernia

CALVIN V. MORGAN, JR., M.D., JAMES W. GIBSON, M.D.

Although traumatic diaphragmatic hernia has been described in the literature for over 300 years, the number of recent reviews leads us to suspect an increasing incidence. This is not surprising in view of the increasing frequency of rapid transportation, super highways and civil disorder. Traumatic diaphragmatic hernia can occur from either blunt or penetrating trauma.

Penetrating injuries usually do not result in much of a problem with diagnosis or management. However, the ones following blunt trauma can sometimes be quite difficult to diagnose. These case reports are offered to increase the awareness of this type of injury.

CASE REPORT #1: F.D., a 29-year-old white female was brought to the Memorial Hospital Emergency Room approximately 18 hours after having been involved in an automobile accident. When seen in the emergency room, she complained of upper abdominal pain, she was tachypneic, short of breath and slightly cyanotic. Examination showed a hyperresonant left hemithorax with decreased breath sounds on the left.

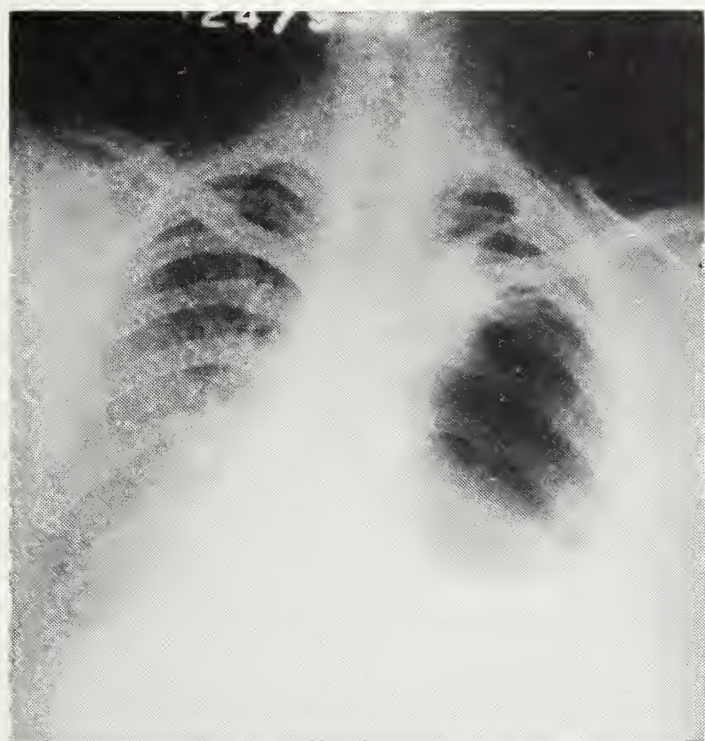


FIG. 1

From the Division of Surgery and Radiology, Memorial Hospital, Inc., Johnson City, Tenn. Presented before the Tennessee Chapter of the American College of Surgeons, Gatlinburg, April 11, 1974.

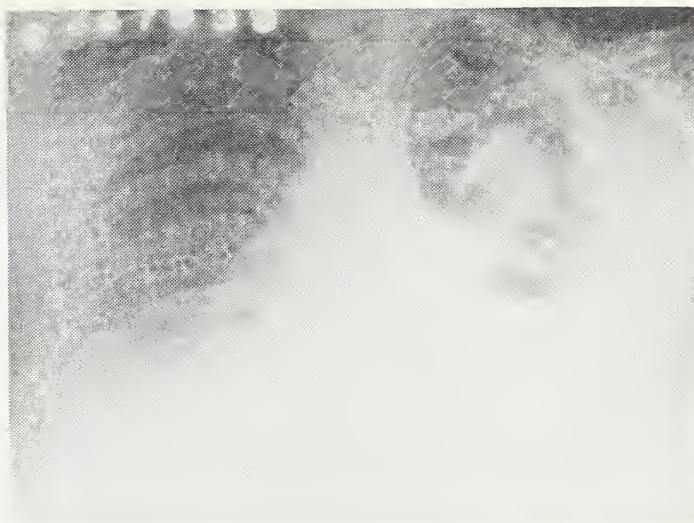


FIG. 2



FIG. 3

She had fractures of the left humerus and right radius. Initial chest x-ray (Figure 1) showed a dome-like shadow in the left hemithorax. A nasogastric tube was passed. Repeat x-ray (Figure 2) with contrast media in the stomach helped establish the diagnosis. She was then taken to the operating room and explored through a midline abdominal incision. The findings at the time of the operation were a contused and macerated left lateral lobe of the liver, a subcapsular hematoma of the spleen which was expanding a large 10 cm rent in the posterior aspect of the left diaphragm, extending to but not through the esophageal hiatus, with approximately $\frac{3}{4}$ of the stomach in the left hemithorax. The stomach was reduced, the spleen and the traumatized portion of the left lobe of the liver were removed and the defect in the diaphragm was closed. Postoperative recovery was uneventful. Followup chest x-ray (Figure 3) showed good results.

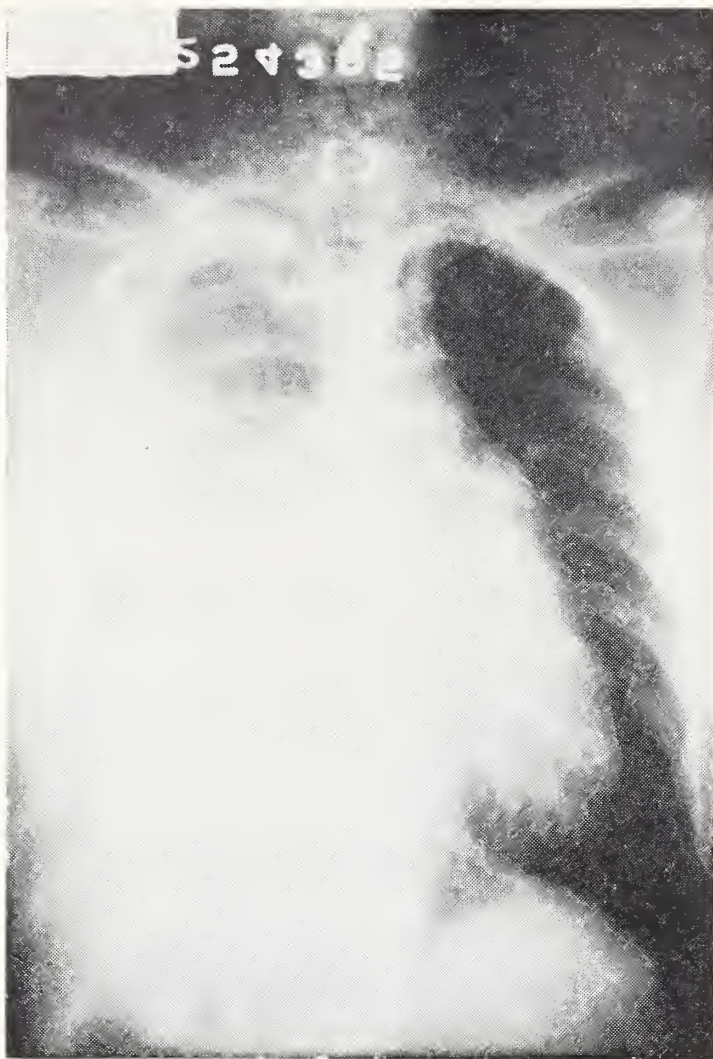


FIG. 4

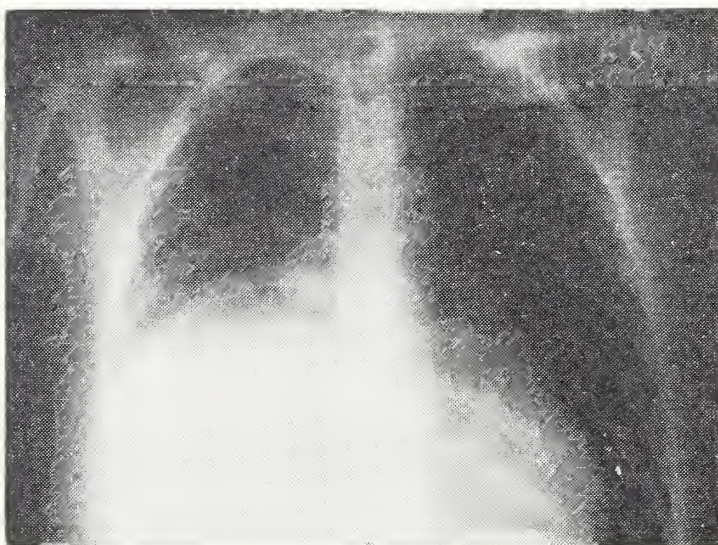


FIG. 5

CASE REPORT #2: Y.G., a 23-year-old black female was brought to the emergency room on 9-19-72, after having been in an automobile accident some 30 miles away. She was first seen at a local hospital, and diagnosed as having a severe head injury. A tracheostomy was performed, and she was referred to our hospital. On arrival at the emergency room, her respirations were 40, her pulse rate was 170. She was decerebrate, with miotic non-reactive pupils. Initial chest x-ray (Figure 4) revealed what was thought to be fluid and blood in the right chest, with considerable traumatic pneumonitis. A chest tube was inserted. She was ad-

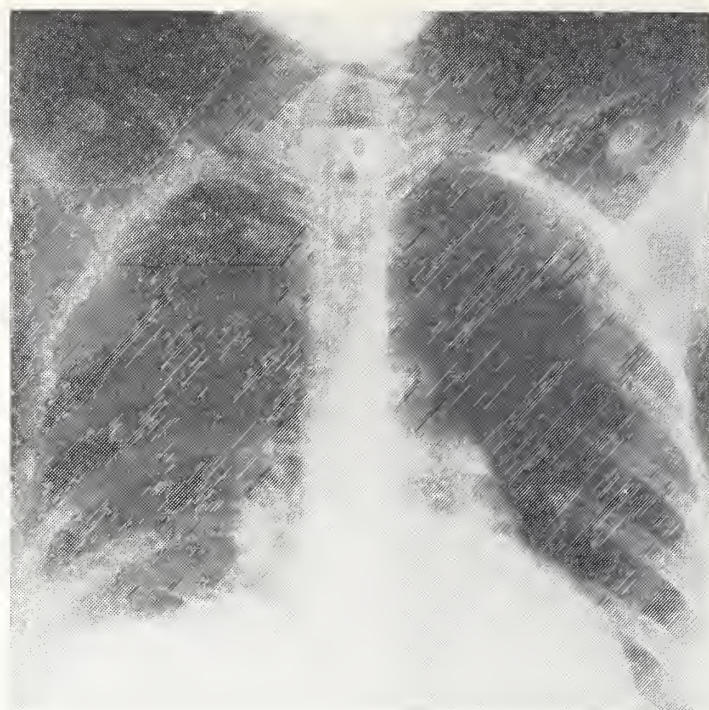


FIG. 6

mitted to the neurosurgical service and given appropriate treatment for her severe brain injury. On 9-28-72 she had a left carotid arteriogram which revealed a small interhemispheric subdural hematoma. Serial chest x-rays over this period of time, as her neurological symptoms improved, raised the suspicion of a possible rupture of the right hemidiaphragm (Figure 5). On 10-22-72 thoracic surgical consultation was obtained. Subsequently, the patient underwent exploratory right thoracotomy and was found to have a large tear in the right hemidiaphragm in its mid portion, with the entire dome of the right lobe of the liver herniated into the right hemithorax. The liver was reduced, the diaphragm was closed and the right lower lobe re-expanded. She tolerated the operative procedure well and the patient has had no further respiratory difficulties. (Figure 6) shows her post operative chest film. At the present she continues to show gradual improvement in her neurological status.

RADIOLOGIC CONSIDERATIONS

According to most authorities, 95 to 98 per cent of traumatic diaphragmatic hernias involve the left hemidiaphragm. The right hemidiaphragm is protected somewhat by the liver, which helps to dissipate the force of indirect trauma and prevent laceration. Almost any of the abdominal viscera may enter the thorax, depending on the site and size of the diaphragmatic tear. The stomach and/or colon may enter the thorax, as well as the omentum, small intestines, spleen, liver and even the kidney and pancreas. In smaller tears in which a portion of air-containing bowel enters the thorax and some of the hemidiaphragmatic shadow is visualized, diagnosis may not be difficult. In other instances, with larger tears, the roentgenographic appearance

may stimulate diaphragmatic paralysis or eventration and pneumoperitoneum, or administration of a contrast media may be necessary to help delineate the situation.

As has been pointed out by Fraser and Pare,² an important differential point in ruptures of the left hemidiaphragm is that the afferent and efferent loops of bowel which may enter the tear will show constriction as they pass through the rent in the diaphragm, whereas in paralysis of the diaphragm or eventration, the adjacent loops of bowel are typically widely separated. The association of other visible radiographic manifestations of trauma, such as fractured ribs may further point toward suggesting this diagnosis.

On the right side the liver may herniate into the hemithorax and in such instances herniation may be suspected by the high position of the lower portion of the liver as indicated by the relative position of gas in the hepatic flexure or right transverse colon, if these areas of the colon happen to be air filled. Also if a portion of the right hemidiaphragmatic shadow can be seen on the film to be quite high, this assists in making the diagnosis.

In questionable cases, diagnostic pneumoperitoneum has been of help. This study will identify the hemidiaphragmatic shadow and will produce a pneumothorax in the presence of a diaphragmatic tear. Carter, et al,⁶ lists four points that should arouse one's suspicion of a traumatic hernia: (1) arch-like shadow resembling a high diaphragm; (2) extraneous shadows or gas containing shadows extending above the diaphragm; (3) shift of the mediastinal structures to the contralateral side; and (4) platelike atelectatic changes superadjacent to the arch-like shadow.

These points, plus consideration of the other possible diagnostic studies, plus a high index of suspicion, would certainly assist in making the diagnosis in many instances.

DISCUSSION

The majority of some of the more recent articles about traumatic rupture of the diaphragm are from larger teaching hospitals. The increasing frequency of high speed accidents, however, make it mandatory that the smaller or community hospitals recognize these potentially dangerous injuries. Most authorities agree that the degree of trauma necessary to cause traumatic rupture of the diaphragm varies over a wide range; however, most cases occur after massive trauma. There

is also a high frequency of associated injuries, such as fractured ribs, fractured pelvis, ruptured spleen, ruptured liver, etc. Most series report the most common site of the injury on the left side is in the posterior lateral portion of the left hemidiaphragm, which was true in our first case. While rupture of the right hemidiaphragm is certainly less common, probably due to the bulk of the liver, rupture on the right side can occur.

The pathophysiology involved in traumatic rupture of the diaphragm depends upon two factors: (1) cardiorespiratory effects, such as compression of adjacent lung, mediastinal shift or contralateral pulmonary compression and (2) the type and amount of the herniated viscera. Thus, in some instances, the presenting symptoms can simulate an abdominal catastrophe or even an intestinal obstruction. Compression of lung tissue leads to atelectasis and shunting with decreased oxygenation.

It should be mentioned that in a number of instances, an unsuspected diaphragmatic tear may be found at thoracotomy or laparotomy performed at a later date for some other purpose. As stated, most traumatic hernias give rise to symptoms, but in some instances the presence of a traumatic rupture may not be noted for months or even years after the traumatic episode.

In the past, there has been some controversy regarding the type of surgical approach to repair these hernias. Most authorities however, feel that the choice of incision varies with the stage of recognition and the presence or absence of other associated injuries. The abdominal approach would of course be preferred in acute situations, so that other abdominal injuries could be evaluated at the time. If it is some time before the diagnosis is made, a thoracic approach is often preferable in order to be able to deal readily with the adhesions which develop between the herniated viscera and the intra-thoracic structures. Primary repairs can usually be accomplished, however, from below without difficulty, especially on the left side.

SUMMARY

Traumatic rupture of the diaphragm is an often occult and sometimes fatal injury. It may be an isolated or one of many critical injuries. A high index of suspicion and appropriate roentgenographic studies should lead to an earlier diagnosis and therefore shorten convalescent period for these patients.

BIBLIOGRAPHY

1. Hill, LD: Injuries of the Diaphragm Following Blunt Trauma. *Surg Clin N Amer*, 52:611-624, 1972.
2. Fraser, RC, and Pare, JAP: *Diagnosis of Diseases of the Chest*. W. B. Saunders Co., Philadelphia, pp. 1230-1232, 1970.
3. Radhakrishna, C, Dickinson, SJ, Shaw, A: Acute Diaphragmatic Hernia from Blunt Trauma in Children. *J Ped Surg*, 5:553, 1970.
4. Tarnay, TJ: Diaphragmatic Hernia. *Annals of Thor Surg*, 5:66, 1968.
5. Ebert, PA, Gaertner, RA, and Zuidema, GD:

Traumatic Diaphragmatic Hernia. *Surg, Gynec and Obstet*, 125:59, 1967.

6. Carter, BN, Guiseffi, J, and Felson, B: Traumatic Diaphragmatic Hernia. *Amer J Roent*, 65:56, 1951.

7. Wise, L, Connors, J, Hwang, YH, and Anderson, C: Traumatic Injuries to the Diaphragm. *J Trauma*, 13:946, 1973.

8. Drews, JA, Merrer, EC, and Benfield, JR: Acute Diaphragmatic Injuries. *Annals of Thor Surg*, 16:67, 1973.

9. Griswold, FW, Warder, HE, and Gardner, RJ: Acute Diaphragmatic Rupture Caused by Blunt Trauma. *Amer J Surg*, 124:359, 1972.

* * *



from the tennessee department of mental health

Mental Health Programs For Preschool Children

Families with a child under five years of age whose behavior is so disturbed that there is a serious family disruption need immediate crisis counseling and support. Families with a young child whose behavior indicates that there is a high risk of eventual long-term institutionalization need a comprehensive service system willing to commit the resources required to helping them maintain their child in their home community. The Regional Intervention Program (RIP), provides these and many other adjunctive services to families in the Middle Tennessee area.

The RIP which began at the Kennedy Center, George Peabody College, in 1969 as a demonstration project funded by the Bureau of Education for the Handicapped and is now a state service administered by Central State Psychiatric Hospital, has received nationwide acclaim as an exemplary early intervention model. The Tennessee legislature recently passed a resolution requesting consideration and planning for statewide expansion of the services. Vertical expansion in the form of a RIP model program for children over the age of five has already been implemented in the middle Tennessee area.

RIP is a flexible, highly economical service delivery system designed for operation by a few specially trained master's level special educators functioning as resource decision makers. Professionals from the areas of pediatrics, education, psychology, child psychiatry, and speech pathology perform an important function as consultants to the resource staff.

The RIP is unique in several ways. It provides early intervention services which do not exist in other regions of the state—services which might bankrupt the families in need of them if they could be purchased. The program works toward precise behavioral objectives under continuous and reliable measurement feedback. RIP's entire organization is a training system in which parents learn to implement program operations at the same time as they are learning to manage their children's inappropriate behavior and teach them essential language and social skills.

Families are referred to RIP by other parents, mental health agencies, public health nurses, preschool teachers, social workers, and physicians.

Dr. Joseph Lentz, a Nashville pediatrician, describes the program as "providing an invaluable service to families with oppositional and disabled preschoolers." Dr. Emmitt Dozier, Vanderbilt psychiatrist, states: "There are children and adults with certain types of problems who benefit significantly from the techniques learned in the program. I have found the staff at RIP to be interested and invested in the children they serve and I am particularly impressed with them working in conjunction with other agencies when indicated with a particular child."

Thus, by utilizing special educators as resource personnel in a program managed, implemented, and evaluated by parents and citizen volunteers, the Tennessee Department of Mental Health through its Middle Tennessee Preschool Program is delivering inexpensive, effective, comprehensive, and individualized services to handicapped preschoolers and their families.

Renal Mass

Answer on page 846

Please examine the 5-minute film from an excretory urogram on a 75-year-old woman with vague abdominal pain, and choose the best diagnosis:

- a) Hamartoma
- b) renal abscess
- c) simple cyst
- d) carcinoma

From the Department of Diagnostic Radiology, University of Tennessee Center for the Health Sciences, Memphis, Tenn. 38103.



FIG. 1



FIG. 2A



FIG. 2B

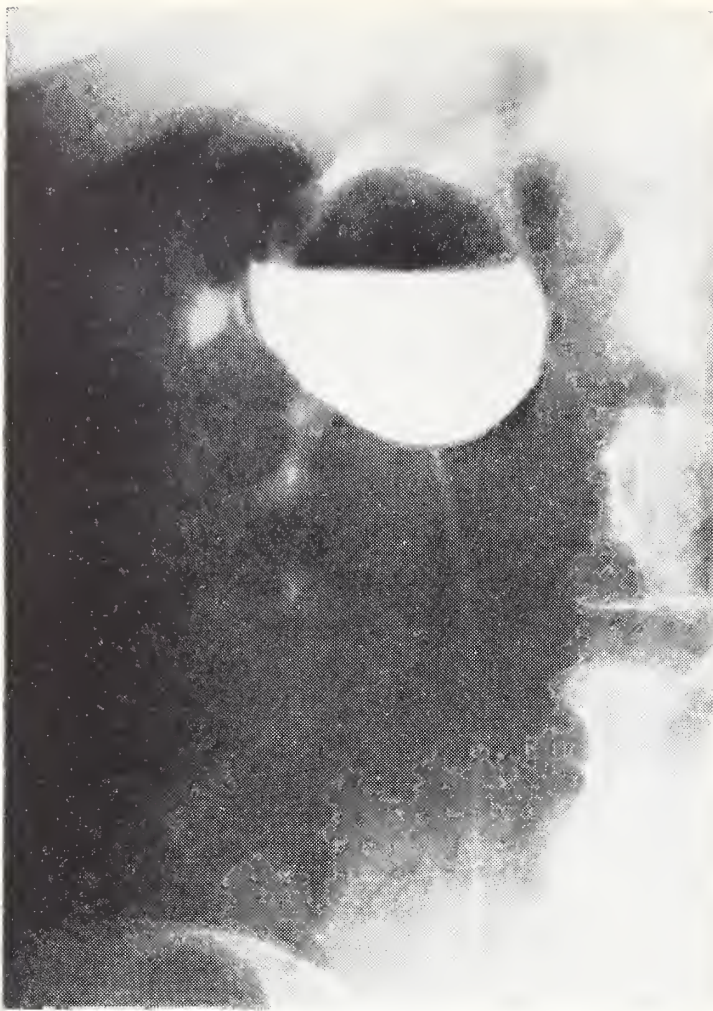


FIG. 3A



FIG. 3B

Answers to X-Ray of the Month

from p. 845

Answer: Simple cyst of the right upper kidney medially. Note the distortion and displacement of the calyces here. Simple cyst is by far the most common mass like lesion of the kidney, occurring about ten times more often than carcinomas. Hamartomas (angiomyolipomas) do affect the kidneys but are rare. This lesion is often found in young people in association with tuberous sclerosis. Abscess of the kidney is also uncommon.

When a mass lesion of the kidney such as this is discovered on excretory urography, further diagnostic work-up at our institution includes renal arteriography. This procedure will correctly differentiate renal cyst from neoplasm about 90% of the time. Please note in Figures 2a and 2b, which are selected films from the renal arteriogram from the patient presented, that the lesion is smooth, radiolucent and has a pencil thin rim medially. No neovascularity, tumor staining or early venous filling is visible.

We can now say that this lesion has a 90% chance of being a simple cyst. A simple cyst occasionally has a carcinoma in its wall, however, so we would like to be more confident of our diagnosis. We accomplish this with translumbar cyst puncture under fluoroscopic control at which time we aspirate the lesion. Clear fluid signals a simple cyst; bloody fluid may mean that a neoplasm is present. In the case presented above, the

fluid was clear. Moreover, cytologic examination of it for malignant cells was negative as was fat stains (usually positive in malignant lesions) and LDH (usually elevated in inflammatory lesions).

Following fluid aspiration, we inject contrast material and air into the lesion and expose films in several different positions so as to outline the wall of the lesion. If a small neoplasm is present in the wall, one can usually see it projecting into the lumen of the cyst. Figures 3a and 3b show that the lesion we are presenting has a smooth wall. We can now be more than 99% confident that we are dealing with a benign cyst.

Cyst puncture has proven to be an easy and safe diagnostic procedure that is accurate enough in reaching a conclusive diagnosis to avoid operations in uncomplicated simple cysts. Occasionally a cyst ruptures at the time of puncture. This produces no untoward effects and therefore should not be a cause for concern.

REES BUTTRAM, M.D.

STEPHEN GAMMILL, M.D.

References

1. Emmett, JL and Witten, DM: "Renal Cysts." *Clinical Urography: An Atlas and Textbook of Roentgenologic Diagnosis*, chapter 9, 931-980, 1971.
2. Lang, EK: "Roentgenographic Assessment of Asymptomatic Renal Lesions." *Radiology*, 109:257-270, 1973.

Coarctation of the Aorta

Coarctation of the aorta is a congenital narrowing of the aorta of variable length and location. Although coarctation is a rare cause of hypertension, its recognition is important because surgical therapy usually relieves the hypertension completely. Approximately 95 percent of coarctations are located distal to the left subclavian artery in close proximity to the ductus arteriosus, the remaining occur elsewhere in the thoracic or abdominal aorta. Classification is based upon patency of the ductus arteriosus and the relationship of the coarctation to the ductus, i.e. preductal or postductal. Generally preductal coarctations diffusely involve the aorta, are frequently associated with complex congenital cardiac lesions and cyanosis, and have a high infant mortality rate. Postductal lesions tend to be discrete, are rarely associated with complex congenital lesions or cyanosis, and frequently permit survival to adulthood.

Pathology and Pathophysiology

Cardiovascular defects associated with preductal coarctations are: patent ductus arteriosus, bicuspid aortic valve, stenosis or abnormal origin of the subclavian artery, atrial or ventricular septal defects, transposition of great vessels, endocardial fibroelastosis, mitral valvular abnormalities, and military aneurysms of small cerebral vessels. Only patent ductus arteriosus and bicuspid aortic valve are commonly associated with postductal lesions.

Although hypertension limited to the upper extremities is a common feature in adults, clinical and experimental studies have failed to elucidate the precise mechanism responsible for this phenomenon. The *mechanical theory* supposes that hypertension results solely from mechanical obstruction to flow while the *humoral theory* proposes that it results from diminished renal blood flow and renal ischemia with activation of the renin-angiotensin-aldosterone system. Neither theory has been conclusively proven; both may well be operative.

From the Hypertension Center, Vanderbilt University Hospital, Nashville, Tenn. 37232.

Diagnosis

Infants most commonly present with symptoms of congestive heart failure. Older children and adults may be asymptomatic or may present with symptoms of hypertension, congestive heart failure, diminished blood flow to the legs, bacterial endarteritis, or rupture of aortic or cerebral aneurysms. While hypertension limited to the upper extremities may be absent in the presence of congestive heart failure, blood loss, or bacteremia, presence of this sign in a child or young adult should prompt a search for the confirmatory signs of absent or weak femoral pulses, brachial to femoral artery pulse, lag, relative hypotension in the legs, and evidence of collateral blood vessels whether palpable, audible, or visible by direct vision or x-ray.

In the presence of hypertension, left ventricular hypertrophy is uniformly present on physical examination and chest x-ray while the ECG may or may not be revealing. Dilated intercostal arteries, a major collateral pathway, are responsible for rib notching frequently noted on chest x-ray. Dilatation of the ascending aorta and poststenotic dilatation of the aorta distal to the coarctation may be visible on x-ray and are the sites of dissection or perforation when these complications occur.

Therapy

Surgical correction is accomplished by excision of the coarctation and end-to-end anastomosis. Rarely interposition of a prosthetic graft is necessary. The optimal age for surgery is between eight and twenty years. Surgical mortality in infants is high (37 to 56 percent) because of the high incidence of associated congenital cardiac defects and congestive heart failure. Consequently it is preferable to treat congestive heart failure in infants and to delay surgery until age six or eight. However, surgery should not be delayed in the face of refractory or recurrent congestive heart failure. Because prognosis is poor (75 percent die before age 40) and surgical mortality low (2.5-5 percent) all symptomatic adults whose general health permits should receive surgery. In adults over 40, surgical mortality in-

cont. on page 849

Anaerobic Bacteriology Part II

As stated in this column last month, there are four groups of organisms that account for most of the anaerobic bacteria encountered in clinical specimens. The four groups are: (1) *Bacteroides*, (2) Anaerobic gram positive cocci (*Peptostreptococcus* and *Peptococcus*), (3) *Clostridium* and (4) Anaerobic diphtheroids (*Propionibacterium acnes*). In addition to these four groups, *Fusobacterium* was mentioned as being of importance in lung abscesses.

The clinical significance of the above four groups of organisms was carefully evaluated at the Massachusetts General Hospital. When an

anaerobic organism was isolated and identified in the clinical laboratory, the patient was carefully evaluated by a group of clinicians to determine if the anaerobic organism was causing a significant clinical infection. In those cases in which *Bacteroides* was isolated, it was found to be causing a clinically significant infection in 79% of the cases. In the other 21% it was thought to represent a contaminant. In those cases in which an anaerobic gram positive coccus (*Peptostreptococcus* or *Peptococcus*) was isolated, it was clinically significant in 75% of the cases and of no clinical significance in 25% of the cases. Surprisingly enough, *Clostridium* organisms were found to be clinically significant in only 15% of the cases. In 85% of the cases they were of no clinical significance, and apparently represented fecal or soil contamination of the site cultured. *Propionibacterium acnes* (anaerobic

In Vitro Susceptibilities of Major Anaerobic Isolates.*

Principal Anaerobic Pathogen		Penicillin G	Chloramphenicol	Clindamycin	Cephalothin	Tetracycline	Erythromycin	Gentamicin	Metronidazole
Common isolates in anaerobic infections above the diaphragm	<i>Fusobacteria</i>	S	S	S	S-R	S	S	R	S
	<i>Bacteroides melaninogenicus</i>	S	S	S	S-R	S-R	S	R	S
	<i>Peptostreptococcus</i>	S	S	S	S	S-R	S-R	R	S-R
	<i>Peptococcus</i>	S	S	S	S	S-R	S-R	R	S
Common isolates in anaerobic infections below the diaphragm	<i>Bacteroides fragilis</i>	R	S	S	R	S-R	S-R	R	S
	<i>Clostridium perfringens</i>	S	S	S	S	S-R	S-R	R	S
	<i>Clostridium</i> sp. (other)	S	S	S-R	S	S	S	R	S

*S indicates > 80% of strains sensitive. S-R 30-80% of strains sensitive, and R < 30% of strains sensitive.

(Table taken from Gorbach, SH and Bartlett, JG. N. Engl. J. Med., V. 290, p. 1291, June 6, 1974).

From the Department of Pathology, Methodist Hospital, Memphis, TN 38104.

* Editor's Note: Both of these should be regarded as potentially dangerous drugs. Chloramphenicol may cause aplastic anemia. Clindamycin (Cleocin®) and its analog Lincomycin (Lincocin®) may produce a membranous colitis, which has caused death in a significant number of cases. They are valuable drugs, but should be used with caution, and only with clear indications—of which infection with these organisms may be.

diphtheroids) was found to be a contaminant in 99% of the cases.

In most cases of anaerobic infections, the physician should select an antibiotic on the basis of predictable susceptibilities for the anaerobic organism isolated (See table). This should then be confirmed by in vitro antibiotic susceptibility testing in the laboratory.

The selection of an appropriate antibiotic in

anaerobic infections would be simple and straightforward if it were not for the fact that *Bacteroides fragilis*, the anaerobic organism most commonly isolated from clinical specimens, has an antibiotic susceptibility pattern that differs from most of the other anaerobic bacteria. As indicated in the table at the end of the column, most clinically important anaerobic bacteria are susceptible to easily achieved levels of Penicillin G. The major exception is *Bacteroides fragilis*, since more than 90 per cent of strains are resistant to penicillin.

Chloramphenicol and Clindamycin* are two antibiotics that are active against a wide range of anaerobic bacteria. The only exceptions are: (1) A few strains of *Clostridium* have been found that are resistant to Chloramphenicol and (2) Some *Fusobacterium varium* and some *Clostridium* (particularly *C. sporogenes*, *C. tertium* and *C. ramosum*) may be resistant to Clindamycin.

* * *

Hypertension . . .

cont. from page 847

creases (13-15 percent) but age is no absolute contraindication. It is difficult to justify surgery in asymptomatic patients unless hypertension is moderately severe (greater than 180 mm Hg) had left ventricular hypertrophy is definitely present.

* * *

Tetracycline was once regarded as the agent of choice for anaerobic infections, especially those involving *Bacteroides fragilis*, but recent studies in several laboratories indicate that 50-65 per cent of the strains of *B. fragilis* are resistant to tetracycline. Resistance has been noted in other anaerobic species, including 20 to 40 per cent of anaerobic gram-positive cocci. In the absence of reliable susceptibility tests, tetracycline must now be regarded as inferior to other agents for anaerobic infections.

Other antibiotics have variable activity against anaerobic bacteria. Cephalothin has an anaerobic spectrum comparable to that of penicillin. Erythromycin is erratically active against most anaerobic species at the levels that can be achieved with oral therapy. Aminoglycosides such as gentamicin, kanamycin, neomycin and streptomycin have little activity against anaerobic bacteria even in very high concentrations.

MARTIN D. PALMER, M.D.

Possible postoperative complications include: recoarctation, the syndrome of paradoxical hypertension and necrotizing mesenteric arteritis, and those associate with thoracotomy, arterial anastomosis and renal and spinal cord ischemia. Of those who survive surgery, 80 percent of infants and 95 percent of adults receive some or complete relief of hypertension.

JAMES M. PERRY, JR., M.D.

Halloween Safety

The spooks and the goblins are busy getting ready for their big night. *Halloween is here again.*

The ancient observance of All Hallows' Eve in modern times is turned over largely to the very small fry. The tots and toddlers take full advantage of the occasion to dress in scary costumes and mooch cookies and candies from the neighbors with the call of "Trick or Treat."

The rugged, rampant vandalism of a past generation is largely passe. But there still are some safety hazards to the youngsters who roam the neighborhood and ring doorbells.

Make your small spooks' costumes of bright colors. You might even sew on some strips of reflective tape. In the excitement of the occasion, they might dart into the street. A full face mask can cause trouble, if there's a chance that it can slip and block vision or breathing. A painted false face, using eyebrow pencil, grease paint or burnt cork, serves admirably. If the little goblin wants a light, give him a flashlight, not a candle or flaming torch.

There have been a few instances in recent years of twisted individuals handing children fruit or candy with needles, razor blades, glass or drugs imbedded. Caution your child to bring home his loot for inspection before eating it.

Adults can help make Halloween safe, too. If you're out in your car, slow down and drive with extra caution. Keep your pets in the house, especially dogs. Leave porch lights burning, front and back. Put away lawn furniture, garden tools, trash cans.

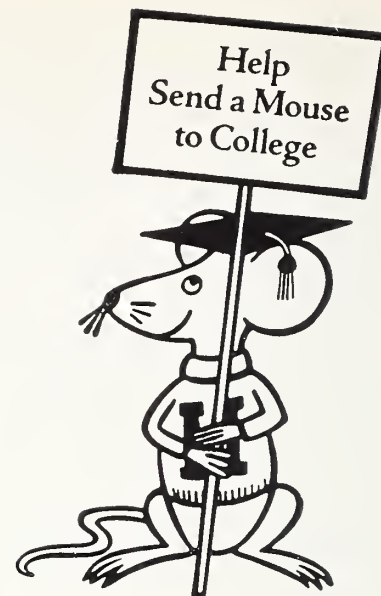
Halloween "Trick or Treat" can be a memorable night for the small children. Help make it a safe night.

Health Tip from the American
Medical Association
FRANK CHAPPELL, Science News Editor

INDUSTRIAL PHYSICIAN

Consider the position of examining physician at a major Du Pont plant. Long recognized as national leaders in industrial medicine and plant safety, Du Pont locations feature excellent facilities.

Work load includes routine examinations, medical treatments, even some minor surgery treatment. Administrative and supervisory responsibility round out your day. Attractive salary and benefits, pleasant location, and yes, peace of mind. For consideration write: Personnel Superintendent, Du Pont Company, Old Hickory, Tennessee 37138. An equal opportunity employer M/F.



Research scientists in university laboratories throughout the country need thousands of mice to help save lives from cancer.

Will you help?
**GIVE TO YOUR
American Cancer Society**
*Fight cancer
with a checkup
and a check.*

THIS SPACE CONTRIBUTED BY THE PUBLISHER

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an expectorant and only
Glyceryl Guaiacolate? **YES!**

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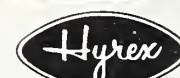
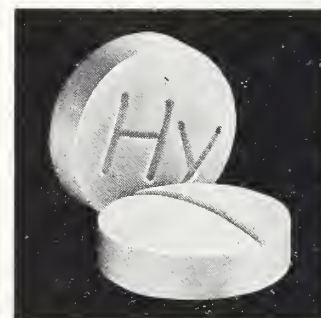
An identifiable white, scored tablet which significantly stimulates the secretion of respiratory tract fluid.

HYTUSS TABS

(GLYCERYL GUAIACOLATE 100mg.)

Composition: Each sugar-free compressed tablet contains glyceryl guaiacolate 100mg. **Action and Use:** This preparation utilizes the effective expectorant action of glyceryl guaiacolate which significantly stimulates the secretion of respiratory tract fluid. The increased flow of less viscid fluid favors expectoration and has a demulcent effect on the tracheobronchial mucosa. The primary usefulness of Hytuss Tabs is to promote the change from a dry, unproductive cough to a productive cough. Hytuss is therefore useful in treating coughs due to the common cold, bronchitis, laryngitis, tracheitis, pharyngitis, influenza and the measles. The expectorant action of Hytuss may also provide symptomatic relief in some chronic respiratory disorders when the patient experiences spasms of dry nonproductive coughing. **Precautions:** Extremely large amounts may cause nausea and vomiting. **Administration and Dosage:** *Adults*—1 tablet four times daily. *Children*—6 to 12 years of age; ½ tablet 3 or 4 times daily. **HOW SUPPLIED:** White, scored, sugar-free, tablet in bottles of 100 - 1,000 - 5,000. **Product Identification Mark:** Hy. **Literature Available:** On request.

Available through all drug wholesalers.



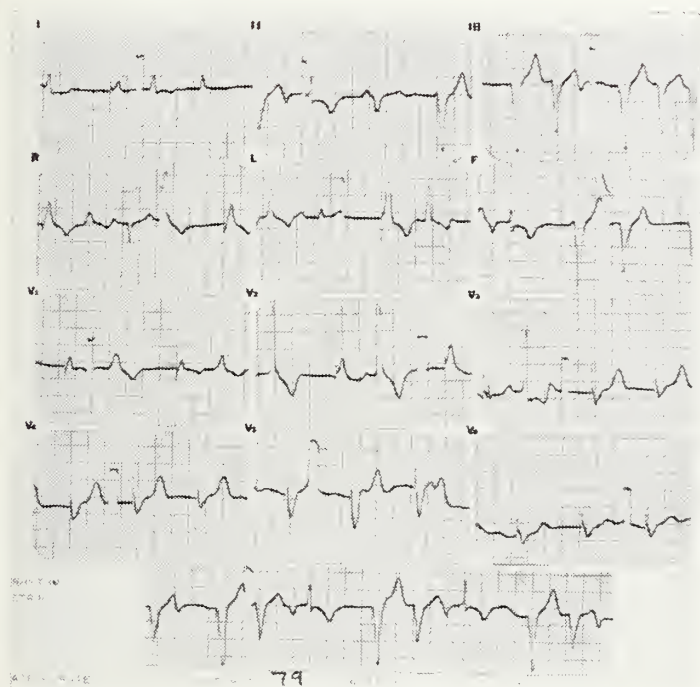
HYTEX COMPANY

832 South Cooper
Memphis, Tenn. 38104

TMA EKG of the month

History

A 47-year-old housewife was admitted to St. Thomas Hospital with history of intermittent shortness of breath associated with pressure-like substernal chest pain. This had been occurring for the preceding two years intermittently and was frequently associated with ventricular bigeminy. She had been treated with Inderal and quinidine without significant improvement. Isosorbide dinitrate had no significant effect on her symptoms. Treadmill exercise electrocardiography showed frequent premature ventricular contractions but no ST-T wave changes suggestive of myocardial ischemia. Cardiac catheterization and coronary cineangiography showed no occlusive coronary arterial disease. Due to her rather marked symptomatology and the inability to medically control her frequent premature ventricular contractions, a temporary transvenous pacemaker was implanted with a rate of 75 per minute and her ventricular ectopic beats were not noted to be present. Therefore, a permanent transvenous pacemaker was inserted to control the ventricular ectopic beats by overdrive suppression. The following electrocardiogram was obtained.



Discussion

The electrocardiogram clearly shows a pacing artefact and in lead V₄ it can be seen that the pacemaker rate is 79/minute. There is frequent ectopic activity present throughout the tracing. It is noted that when an ectopic beat occurs the pacemaker spike does not appear at the expected time. This indicates that the pulse generator is

functioning properly in the R wave inhibited demand mode. Analysis of the rhythm strip at the bottom of the tracing reveals that the QRS complexes are occurring in clusters of three. The first beat in this trigeminal pattern consists of a paced beat. It is rather wide and aberrated and is preceded by the very sharp, narrow downward deflection of pacemaker stimulus. The next beat in the complex occurs at a coupling interval of 0.46 seconds. This beat is also unusually wide with a duration of 0.13 seconds. It has the same orientation as the paced beat. This beat represents a premature ventricular contraction following the paced beat with a fixed coupling interval. Note that the first beat in the rhythm strip is such a premature contraction, and is followed by an inverted P wave.

The inverted P waves in leads 2 and 3 represent P waves which are directed from inferior atrium to superior atrium. They can therefore be regarded as reciprocal P waves representing retrograde conduction through the AV node from the preceding ventricular contraction followed by retrograde depolarization of the atrium. The first beat in this series is not followed by a QRS complex. The next retrograde P wave, however, follows the QRS by a somewhat longer interval and is in turn followed by a QRS complex which is opposite in direction to the preceding two beats and is not widened. This is followed by an inverted T wave.

T wave inversion of a normally conducted beat following a premature ventricular contraction is a frequently recognized phenomenon. Note that the QRS complex in the second triad of beats in the rhythm strip occurs following a slightly longer PR interval than the QRS following the first conducted retrograde P wave. Unfortunately the rhythm strip is not long enough to show whether or not this Wenckebach pattern persists. Note also that this pattern is intermittent throughout the tracing. The paced beat follows the preceding QRS complex by 760 msec. This is exactly the same interval that is noted in the continually paced beats in leads V₄ through V₆. This pacemaker therefore demonstrates no hysteresis.

Final diagnosis: 1) R wave inhibited demand pacemaker functioning normally; 2) frequent premature ventricular contractions; 3) frequent echo beats (retrograde conduction to atria followed by normal QRS complex).

HARRY L. PAGE, JR., M.D.
W. BARTON CAMPBELL, M.D.
Co-directors

From the Department of Cardiology, St. Thomas Hospital, Nashville, Tenn. 37203.



self-evaluation quiz

THE COOPER REVIEW

Answer true or false unless otherwise indicated

(answers on page 872)

1. Peptic strictures are frequently associated with hiatal hernias.
2. Achalasia, a motor disturbance of the esophagus, is frequently associated with profound weight loss of 30 or 40 lbs. of weight.
3. Multiple sclerosis is a relatively common affection of the central nervous system in America. Diagnosis is often difficult, especially early in the disease. Most patients follow an intermittent course of exacerbations and remission, and many ultimately develop considerable neurologic disability. A wide variety of forms of therapy have been advanced, and are currently in use by physicians. The precise etiology of this disease has not yet been identified, although the viral and immunologic aspects seem promising currently.
 - a. It is essential for all MS patients to adhere to a strict low fat diet.
 - b. Frequent injections of vitamin B12 are important in the management of this malady.
 - c. Massive oral doses of various vitamins such as vitamin E have proven of value in therapy.
 - d. A recent large cooperative study has shown that short courses of daily ACTH injections can often be helpful in inducing a remission in the disease when acute exacerbations occur.
4. Which test is of greater value for the diagnosis of systemic lupus erythematosus?
 - a. LE cell preparation
 - b. Antinuclear Antibody test
 - c. Both tests have value
5. A 44-year-old man, heavy smoker, heavy drinker, presents to your office with right shoulder pain. On examination, he has good range of motion of his right shoulder, without trigger points. There is a noted droop to the patient's right eye, associated with a constricted pupil. You inject his shoulder with a local corticosteroid preparation, and obtain X-rays. X-ray of the shoulder and chest are essentially negative. Two weeks later the patient returns stating that he is much worse, and was not relieved by the injection. On examination he has full range of motion without pain. No trigger points.

The next appropriate step to take is:

 - a. Repeat the local corticosteroid injection.
 - b. Start him on a course of Phenylbutazone therapy.
 - c. Perform a bone scan.
 - d. Perform a lumbar puncture.
 - e. Obtain apical lordotic views of the chest.

"The Cooper Review" is published by the Department of Medical Education, The Cooper Hospital, Camden, New Jersey, Sherman Garrison, M.D., Director. Produced by the Medical Staff of The Cooper Hospital, "The Cooper Review" is a review of clinical observations and contemporary problems encountered by the staff.

from the
executive
director

J. E. BALLENTINE

MEDICAL DIGEST

NEWS OF INTEREST TO DOCTORS IN TENNESSEE

CONGRESS APPROVES PENSION REFORM BILL . . . The bill, passed by the Senate and the House, and signed by the President, will allow self-employed physicians to increase Keogh Plan retirement contributions for this year to 15% of income, up to \$7,500 a year . . . The arrangement would be retroactive to January 1, 1974 and would boost tax deferrals on earned income from the old level of 10% of income, and a maximum of \$2,500 per year . . . The law contains a relatively minor restriction on corporation pension plans that would affect so-called professional corporations or associations, that have been gaining favor with many physicians in recent years. A "grandfather clause" exempts current plans that exceed this standard . . . The bill's main features establish vesting principles, and set up standards for funding for every pension plan in the country . . . Here are some hypothetical examples to illustrate the new provision as it could pertain to physicians . . . Dr. X nets \$30,000 a year from his practice. Under previous rules, he was allowed to defer taxes on 10% of his income contributed to an approved Keogh Plan up to a maximum of \$2,500. Dr. X was allowed to set aside \$2,500 for retirement since a full 10% of his income, \$3,000, would have exceeded the ceiling. Self-employed persons will now be allowed to defer taxes on 15% of their income up to a new ceiling of \$7,500. Dr. X will now be permitted to defer taxes on \$4,500, or 15% of his income.

Another illustration: Dr. Y nets \$40,000 from his practice. He pays his one full-time nurse \$10,000 per year. Under the old rules, he may have established a 6% Keogh Plan. He was allowed to defer taxes on \$2,400 of his income and he only was required to contribute \$600 to the plan for his nurse (6% of income) . . . Noting the new rules, Dr. Y will waste no time changing to a maximum 15% plan. His tax deferred income can now rise to \$6,000 (15% of his net), and he will have to contribute \$1,500 per year for his nurse.

* * * * *

A PROCEDURE FOR FEE INCREASES . . . A procedure for determining reasonable, non-inflationary fee increases, in line with "voluntary restraint" has been recommended by the American Medical Association . . . Physicians are urged to increase fees only when necessary (1) to offset high operating costs; (2) to keep pace with cost of living increases; or (3) to correct inequities caused by the price freeze under the now expired Economic Stabilization Act . . . Physicians must determine for themselves whether they need to increase net income, and if so, how much--to keep from contributing to further inflation. Physicians may still need to increase fees moderately to meet higher operating costs.

* * * * *

NATIONAL HEALTH INSURANCE . . . The House Committee on Ways and Means, after conducting more than a week of sessions directed toward developing

a compromise NHI bill, has now deferred action on the subject. It appears certain that no such legislation will be passed in the present Congress, although the Committee staff has been instructed to continue its efforts to formulate alternative health insurance provisions to be considered by the Committee. Votes were taken on several major policy questions, but the Committee was unable to agree upon a mutually acceptable financing plan for catastrophic health insurance. Chairman Wilbur Mills had presented a 12-page proposal to the Committee in which he outlined major principles as well as certain specifics of a National Health Insurance program. The proposal formed the basis for the Committee discussion and for the several votes which were taken. Representative Broyhill (R-Va.) called for the adoption of the tax credit financing system as embodied in the AMA's Medicrodit proposal, but the motion failed to carry as a result of a 12-12 tie. Also defeated by a vote of 13-12 was a proposal to adopt the financing system of H.R. 5200, the NHI proposal advanced by the Health Insurance Association of America. The Committee did, however, agree to a proposal for standardizing the Medicaid program. It was apparent from the voting that the Committee had not reached agreement on major elements. Chairman Mills then postponed for now any further consideration of NHI.

The proposal, developed at the direction of Representative Mills, would provide the following: (1) coverage of the expenses of catastrophic illness financed by a payroll tax requiring employers to pay up to 75% and workers up to 25%; (2) uniform eligibility requirements and benefit structures for the Medicaid plan; and (3) mandated employer-employee health insurance for the first \$6,000 of cost incurred per family per year. The employer would contribute at least 75% of the health insurance premium under the mandated plan (65% for the first three years of the program). An alternate plan would be established to cover those persons not otherwise insured. The plan would be administered through the states through a state chartered health insurance corporation. The Medicare program would be revised to remove the limits on hospital days, limit deductibles and coinsurance to \$1,000 and provide coverage of outpatient drugs.

* * * * *

PHYSICIANS TRAVELING ABROAD ARE HIT BY IRS RULING . . . The Internal Revenue Service has ruled that expenses incurred by physicians on trips abroad that combine vacations with "brief" professional seminars, are non-deductible personal expenses. The IRS stated that short professional seminars during two-week trips abroad "did not convert a vacation into a business trip."

* * * * *

PHYSICIAN PARTICIPATION IN PSRO . . . The Tennessee Foundation for Medical Care, Inc., comprising those physicians in the eighty-four counties of the Area II PSRO organization, have steadily been indicating their participation. Sixty per cent of the eligible physicians out of the 1,800 physician area of the eighty-four counties, have now signed cards indicating participation . . . The Foundation has commitments from twenty hospitals to participate in the Foundation's data system. There are some 160 hospitals within the area . . . The Foundation's plan has been accepted by some thirty long-term care facilities, such as skilled care facilities.

**public
service**



COMMUNICATIONS • LEGISLATION

HADLEY WILLIAMS, ASSISTANT EXECUTIVE DIRECTOR

EXPANDED ROLE OF R.N. DEFINED . . . The Tennessee Board of Nursing has adopted a change in their rules and regulations concerning the functions and duties of RNs. The following statement was adopted by the Board:

"Registered nurses, duly licensed by the State of Tennessee who practice nursing in this state are not prohibited from expanding their roles by the Nursing Practice Act. However, RNs functioning in an expanded role assume personal responsibility for all their acts. RNs who manage the medical aspects of a patient's care must have written medical protocols, jointly developed by the nurse and the sponsoring physician(s). The detail of medical protocols will vary in relation to the complexity of the situations covered and the preparation of the RN using them."

TMA's Interprofessional Liaison Committee has been working with the Tennessee Nurses Association to develop a joint statement on the expanded role of the professional nurse in health care delivery. A statement developed jointly was presented to the TMA House of Delegates in April but was re-referred by the House back to the committee for further refinement of the description of the nurse-patient-physician relationships and accountability.

* * * * *

SOUTH AMERICAN ADVENTURE SCHEDULED . . . Reservations are now being taken for TMA's Air/Sea cruise of South America scheduled to depart Memphis and Nashville, February 19, 1975. This once-in-a-lifetime cruise along the sunny coast of South America will be aboard the new luxury cruise ship GOLDEN ODYSSEY during her maiden season. Plans call for a direct flight aboard a chartered jet to Rio de Janeiro to board the Royal Cruise Line's brand new cruise ship GOLDEN ODYSSEY. Ports of call during the two-week excursion include some of the loveliest and most exciting places along South America's East Coast. Santos, Sao Paulo, Mar Del Plata, Montevideo and Buenos Aires will all be visited. All details for the trip are being handed by INTRAV of St. Louis. The price depends upon the type stateroom selected and ranges from a low of \$1098 to \$1598. All meals are included as well as a generous 70-lb baggage allowance. A deposit of \$100 will hold any member's reservation. Interested persons are urged not to delay in submitting a reservation.

* * * * *

MED STUDENTS REACH ALL TIME HIGH . . . 14,436 First-Year Medical Students a record total, are expected to enroll in the nation's 114 medical schools this fall. The AMA's Department of Undergraduate Medical Education estimates that total medical school enrollment will be 53,735. Although no new medical schools admitted students for the first time this year, the expansion of the existing schools accounts for the slight increase over last year's figures of 14,182 first-year medical students and a 50,912 total.

in Brief

A summary of AMA, medical & health news

American Medical Association / 535 North Dearborn Street / Chicago, Illinois 60610 / Phone (312) 751-6000 / TWX 910-221-0300

The AMA is offering two "firsts" in postgraduate courses, beginning with the Clinical Convention in Portland, Ore. Scheduled for Nov. 30-Dec. 1, a postgraduate course in public speaking will cover the basic speaking skills offered in the regular AMA speakers' programs, plus personal coaching and evaluation through television playbacks. The course provides 11 hours of Category I credit toward the AMA's Physician's Recognition Award. Also offering Category I credit will be new courses, co-sponsored by the AMA and state medical societies and offered as regional programs. They are designed for physicians who do not attend AMA Annual or Clinical Conventions.

The Joint Commission on Accreditation of Hospitals' Board of Commissioners has expanded due-process provisions for physicians employed by hospitals in medical-administrative positions. Under the new policy, a physician or dentist who is being terminated has the right to a hearing before a joint conference of hospital governing board representatives and representatives selected by the voting members of the medical staff. The change in the interpretive material of Standard VIII of the "Governing Body Management" section of the *JCAH Accreditation Manual for Hospitals*, is expected to restrict arbitrary action in the termination of salaried chiefs of services and other physicians in medical-administrative positions.

An open hearing on the AMA's Section Councils will be conducted by the Council on Constitution and Bylaws, Nov. 30, during the 1974 Clinical Convention.

Coverage for chiropractic services under Medicare will not be expanded. HEW issued final regulations limiting a chiropractor's activity under law. Coverage will be provided only for treatment of "subluxation" when "a malpositioning of a vertebra (is) anatomically demonstrable on an x-ray film." Chiropractors will not be paid for diagnostic x-rays.

AMA computer services available to state and medical specialty societies under AM-CAP--American Medical Computer Services--are detailed in a booklet prepared by the AMA's Dept. of Data Services. Societies may obtain a copy from Dept. of Data Services, AMA Headquarters.

A three-year, experimental citywide prepaid health system under Medicaid will be launched in Newark, N.J. Between \$36 million and \$54 million in federal and state money will be spent on the project. The plan will reorganize the existing health facilities in Newark into one system of care, available on a prepaid basis. Six hospital clinics and six neighborhood health centers are participating in the program. The majority of physicians in the city have formed an independent practice association that will provide private doctors' services in the same prepaid way.

Acceptance of foreign medical graduates by all U.S. training hospitals was urged by the AMA's Committee on Housestaff Affairs. The committee issued a report with 45 separate recommendations advocating the "elimination of double standards, discriminatory requirements and other pernicious policies..." The report will be forwarded to the AMA's Board of Trustees to be included in the Board's report to the Clinical Convention in December.

Non-profit hospitals are no longer exempt from the National Labor Relations Act. The new law includes a provision for a 30-day fact-finding period prior to the end of negotiations on contracts. The American Hospital Assn. had advocated a 60-day cooling-off period beginning at the end of contract negotiations.

Retired military physicians may now take positions as physicians with the Defense Dept. without losing any of their retirement pay. Defense asked the Civil Service Commission to waive provisions of the Dual Compensation Act because of the physician shortage caused by the end of the "doctor draft." Previously, CSC had waived the provisions against dual compensation in individual cases, but had never granted the blanket authority.

Three upcoming AMA courses and conferences at the Marriott Motor Hotel, Chicago are: Financial Management Seminar, Nov. 2-3, contact Practice Management Section, AMA Headquarters...AMA Speakers and Leadership Program, Nov. 16-17, contact AMA Speakers and Leadership Programs, AMA Headquarters...3rd AMA National Leadership Conference, Jan. 24-26, 1975, contact Field Service Dept., AMA Headquarters.

a Source of Information?

Yes, with certain reservations. The average sales representative has a great fund of information on the drug products he is responsible for. He is usually able to answer most questions fully and competently. He can also supply copies of articles that contain a great deal of information. Here, we must exercise some caution. I usually accept most of the statements and opinions that I find in the journals and studies which come from the larger teaching facilities. I do so without saying that a physician should also rely on other sources for his information on pharmacology.

Role of Sales Representatives

Ideally, a candidate for the position as a sales representative of a pharmaceutical company should be a graduate pharmacist with a questioning mind. I don't think this is possible in every case, but it becomes the responsibility

of the pharmaceutical company to train these individuals comprehensively. It is of very great importance that the detail man's knowledge of the product he represents be constantly reviewed as well as updated. This phase of the sales representative's education should be a major responsibility of the medical department of the pharmaceutical company.

I am certain that most of these companies take special care to give their detail men a great deal of information about the products they produce — information about indications, contraindications, side effects and precautions. Yet, although most of the detail men are well informed, some, unfortunately, are not. It might be helpful if sales representatives were reassessed every few years to determine whether or not they are able to fulfill their important function. Incidentally, I feel the same way about periodic assessments of everyone

in the health care field, whether they be general practitioners, surgeons or salesmen.

Value of Sampling

I personally am in favor of limited sampling. I do not use sampling in order to perform clinical testing of a drug. I feel that drug testing should rightly be left to the pharmacology researcher and to the large teaching institutions where such testing can be done in a controlled environment.

I do not use samples as a "starter dose" for my patients. I do, however, find samples of drugs to be of value in that they permit me to see what the particular medication looks like. I get to see the various forms of the particular medication at first hand, and if it is in a liquid form I take the time to taste it. In that way I am able to give my patients more complete information about the particular medications that I prescribe for them.

city they are indeed useful; particularly in the fact that they disseminate broadly based educational material and serve not just "pushers" of their drugs.

Other Side of the Coin

Obviously, the pharmaceutical companies are not producing all educational material as a labor of love — they are in the business of selling products for profit. In this regard, ambitious and improperly motivated sales representatives can have a negative influence on the practicing physician, both by presenting a one-sided picture of his product, and by encouraging the physician to depend too heavily on drugs for his total therapy. In many ways, the salesman has often distorted objective reality and undermined his potential role as an educator.

Industry Responsibility

Since the detail man must be an information resource as well as a representative of his particular pharmaceutical company, he should be carefully selected and

thoroughly trained. That training, of course, must be an ongoing one. There must be a continuing battle within and with the pharmaceutical industry for high quality not only in the selection and training of its sales representatives, but also in the development of all of its promotional and educational material.

The industry must be ready to accept constructive as well as corrective criticism from experts in the field and consumer spokesmen, and be willing to accept independent peer review. The better educated and prepared the salesman is, the more medically accurate his materials, the better off the pharmaceutical industry, health professionals and the public — *i.e.*, the patients — will be.

Physician Responsibility

The practicing physician is in constant need of up-dated information on therapeutics, including drugs. He should and does make use of drug information and answers to specific questions supplied by the pharmaceutical representative. However, that informa-

tion must not be his main source of continuing education. The practitioner must keep up with what is current by making use of scientific journals, refresher courses, and information received at scientific meetings.

The practicing physician not only has the right, but has the responsibility to demand that the pharmaceutical company and its representatives supply a high level of valid and useful information. I feel certain that if such a high level is demanded by the physician as well as the public, this demand will be met by an alert and concerned pharmaceutical industry.

From my experience, my impression is that sectors of the pharmaceutical industry are indeed ethical. I challenge the industry as a whole to live up to that word in its finest sense.

*Pharmaceutical
Manufacturers Association
1155 Fifteenth Street, N.W.
Washington, D.C. 20005*





E. KENT CARTER

**president's
page**

Strategy of Conquest

Many great military battles have been won by laying siege to the stronghold of the enemy. Two successful examples that come to mind are the siege of Vicksburg and Richmond by General Grant during the "War Between the States." An unsuccessful example was the siege of Stalingrad during "World War II."

Medicine is now under siege. Our two strongholds, "quality of care" and "reasonable costs" are now besieged not by one enemy but by many. Labor unions have escalated wages. Therefore prices and the cost of medical care among other services, have mounted their siege both politically and by the use of publicity. Labor unions are unwilling to assume their guilt and would like to make Medicine their scapegoat. Politicians have spent, pork barrelled, and stimulated inflation to a point that they cannot comprehend, and obviously cannot control. They are picking Medicine as their whipping boy to hide behind when they face their constituents.

Even big business has taken advantage of labor's greed, and politicians' spending to increase their profits to levels beyond their dreams, and have squandered our resources along the way. They too join the siege. They join because labor is demanding that business pay part of the increased cost of medical care which it helped to produce. Why lay siege to Medicine? It is a service people cannot do without. Our besiegers cannot declare medicineless Thursday, or order the patient to take a half dose every other day, or cancel the last three stitches in a surgical procedure. Medical care cannot be treated like the meat shortage, or the fuel crisis. A second reason is that doctors are too busy to form a united front and fight back like other groups. We cannot declare a "doctor holiday" or take a week off to march down Pennsylvania Avenue.

Our profession is smaller than General Motors—it does not have the financing of the oil companies and does not control the number of votes as do the labor unions. We are easy pickings. The siege is on. We are surrounded.

How do we man our defenses? The answer lies at the door of every practicing physician in this country. We each see at least twenty patients per day. There are two hundred thousand plus physicians in the United States. We practice at least six days a week, 50 weeks per year. Two million patients each day pass through the offices of practicing physicians in the United States. Allowing for return or repeat visits, we see a tremendous number of voters. Will we take the time, make the personal effort to make these patients feel welcome in our offices, show them we care, and that we are their personal physician and friend? Will we make the effort to correct the muddy, mendacious thinking that has been injected into the patient's mind by our enemies? If we do not, Medicine will get a permanent setback, and more important our system of health care will suffer a humiliating defeat. In addition to his personal efforts, the physician should demand that his local, state and national organizations mount educational campaigns to interpret our system of Medicine to the voters.

We must be willing to make a financial sacrifice to pay for this since we do not have the ear of the media as does our adversaries, especially the government. This effort must be made or we had better resign ourselves to becoming vassals of union leaders and government bureaucrats. The patient should take heed unless he wants to become a number with a diagnosis and treatment prescribed by a bureaucracy, rather than by physicians with education, who reason and have compassion for their patients.

Yours truly,

President

Journal

OF THE
TENNESSEE MEDICAL ASSOCIATION

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OCTOBER, 1974

editorials

Plus ça Change . . .

It's not that I don't understand the uneasiness of our profession in these days, faced as we are by progressively more government control, and especially by the uncertainty of what the future will bring. But sometimes, and particularly in some of our members, this uneasiness borders onto paranoia as they contemplate surveillance of their practice, which they envision not as Big Brother looking over their shoulder, but as Big Brother guiding their hand and calling all the shots.

Perhaps they are right, and this is for a fact in the future, but it will require legislation far beyond that contained either in current laws for

professional services review or in proposed legislation, even Senator Kennedy's, for National Health Insurance. While we need to keep a cautious ear to the ground, and to use to the utmost our powers of electoral selection as to who will represent us, I should like to propose that most of what we are dreading is not in any way new, and is simply a present awareness, forced, to be sure, of something which has been with us for a very long time—over half a century, in fact, and which is by no means all, or even primarily, bad.

Those of us who were in practice prior to or shortly following World War II can remember, if we put our minds to it—and we should—what conditions existed, even at that late date, in many of our major hospitals, not to mention the small private hospitals in the state. No internship was required, and a graduate of an accredited medical school could literally practice “medicine and surgery” in the fullness of all that term implies. He could do whatever he was “man enough” to try. The outcome, in many cases, was predictably dismal, and often when it turned out otherwise it was due to the ministrations of knowledgeable house officers. Anyone who wants to return to that, say, “Amen.”

What changed it? It was a combination of professional conscience and legislation, the latter promulgated primarily by the medical profession itself. As early as 1917 the American College of Surgeons, recognizing the wide disparity between hospitals, and between those who practiced in them, set up what was known as the Hospital Standardization Program, which, with its periodic inspection and accreditation, culminated in the Joint Commission on Accreditation of Hospitals. This accreditation has acquired progressively more power, with teeth, and respect—again due to the efforts, not of government, but of the profession itself. If we are guilty of any negligence, it is that of not having been as vocal in informing the public of our efforts as our detractors have been in proclaiming our faults. As a late surgeon friend of mine used to say, “He who tooteth not his own horn, the same shall not be tootethed.”

In the mid-fifties the American College of Surgeons introduced the concept of a medical practice audit, to find out how *all* hospital patients were really being cared for. This grew out of tissue committees, required by the ACS and later the JCAH, to account for surgically removed tissues which showed no pathology to justify removal. The Kellogg Foundation was

persuaded to make grants, culminating in 1955 in the formation of the Commission on Professional and Hospital Activities, a non-profit corporation, under the guidance of Vergil Slee, M.D. CPHA has developed a nationwide service over the past 20 years, and has amassed a huge data bank from hundreds of hospitals. Its service is what we know as PAS/MAP, and is in use in a number of hospitals in Tennessee. The two parts of its program have to do with quality of care (MAP) and utilization of care (PAS).

With the advent of Medicare (1965) and later Medicaid, utilization began to come under close scrutiny, but here again we tend to lose sight of the fact that this was not something new. As third party payers came on the scene—the “Blues” and others—they began to accumulate actuarial statistics, and based on these, and on fee schedules for physician services, furnished them by medical societies or developed on the basis of “usual and customary” fees charged by physicians serving their clients, began to disallow portions of claims of their clients when they seemed excessive. Medicare simply made this more visible, and, since it was “government,” less palatable. Actually, the Medicare administration was only trying to exert what is all too uncommon in government, accountability in expenditure of public funds. As taxpayers, if not as physicians, we should be grateful!

Most of what appears in PL 92-603, the PSRO law, was simply the couching in a statutory format by Senator Bennett of proposals by organized medicine for policing of its own members and the institutions in which they practiced. It is firmly based in history and tradition extending back over a half century, from the time of World War I. It has gathered into one law assurance (or attempted assurance) of high quality patient care and accountability for public funds.

I recognize that there is a large emotional overlay in our thinking about PSRO, because it is government imposed, and we are—not without justification—suspicious of governmental operations. As a close and knowledgeable observer said recently, “We don’t have a malicious government—just a dumb one.” I can grant them that much, can you? If you can, then ask yourself whether you desire for your patients less than the best possible medical care at a reasonable cost. Then ask yourself whether or not, as a taxpayer, you desire from your government accountability for public funds.

If you answer yes to both or either of these

questions, you cannot seriously question the intent of PL 92-603. Your next step is to read the law. It has been published in the JOURNAL (vol. 66, p. 980-992, Oct., 1973). If there are parts which you think need changing, communicate this information to your representatives in the state medical society and in the Congress. It is not only your privilege, it is your duty. I am constantly amazed, though perhaps I shouldn’t be, at the number of doctors who complain—sometimes bitterly—about a law concerning which they in fact know little or nothing. For the most part, it is not a bad law, and your representatives are trying to change the parts which are bad.

But whatever you do, don’t blame your Federal government for dreaming up something with which to torment you. Senator Bennett’s ideas on PSRO came, ultimately, from yourselves, a product of your concern for your patients.

Plus ça change, plus c’est la même chose.*

J.B.T.

From Samhain to UNICEF: Suffer the Little Children . . .

The end of the ancient Celtic year was October 31, and in the pre-Christian British Isles the Druids celebrated it as the eve of Samhain, the end of summer and the feast of the dead. On that night the spirits of the departed were said to return to their kin to gather warmth and comfort for the coming winter. In its campaign to replace pagan festivals with Christian ones, the church attempted to substitute for it Allhallows Eve the vigil preceding All Saints Day, a celebration originating in AD 834 from the dedication in Saint Peter’s basilica of a chapel to all the saints. Because the church has always been only partially successful in depaganizing custom, what came out in practice was, as usual, a compromise.

It is relatively easy to eradicate the outward signs of heathen religions—the formal liturgies and festivals, the temples to Apollo, Diana, Ymir, Quetzalcoatl, and so on—but the beliefs of their priests and worshippers die hard. By the end of the middle ages Allhallows Eve had become an established part of the church calendar, and in Latin countries and continental Europe only the religious aspects of the feast were celebrated. But its rejection, along with other feasts, by the Protestant reformation did not prevent Halloween folk customs of pagan origin from flourishing in

* *The more it changes, the more it’s the same thing.*

the British Isles, customs derived from the rise in the middle ages of Satanism, with its witches' sabbaths and cult practices.

It was rural Ireland which more than any other area maintained its hold on Halloween. In the name of Muck Olla, an ancient Druid deity, or of St. Colomb Cille, a 6th century missionary to Ireland, groups of Irish peasants would go from house to house demanding contributions of food, clothing, or money, the alternative being pranks and mischief. Though some of the Halloween customs were brought to this country by the early English and Scottish settlers, its observance here dates mostly from the massive Irish immigration of the 1840's, and with the introduction of their custom of "trick or treat." By the end of the century this had become largely "trick," and it soon degenerated to acts of sheer vandalism. As 20th century Americans became less and less tolerant of destructive acts, laws began to be enacted to curb Halloween activities.

The rationalism of the 20th century has resulted in a gradual decline of folk traditions generally, and this, combined with the destructive possibilities inherent in the mobility we have in the automobile, has caused observance of Halloween to be largely relegated to the young, whose imaginations are as yet unencumbered. Though both the pagan and religious aspects of the season have become attenuated, we have at the same time in the past few years been seeing neighborhoods in increasing numbers turning an evening once devoted to harassment on the one hand and apprehension on the other into a force for good—"Trick or Treat for UNICEF."

The United Nations is not an uncontroversial institution, and one must often wonder whether or not it is a worthwhile endeavor, particularly for the United States, who, while shouldering most of its financial burden, at the same time bears the brunt of most of its attacks, made up as it now is of scores of small, impoverished—the so-called emerging nations, most of which are not our friends.

Regardless of how we feel about the United Nations, however, UNICEF—the United Nations Children's Fund—merits our full support. Its main goal is to strengthen and expand basic maternal and child health services. Serums and vaccines for immunization against typhoid, smallpox, diphtheria, tetanus, measles, and tuberculosis at an average unit cost of less than one cent are provided by the agency. In addition, stipends are provided for health care personnel; aid is given

in providing clean water wells; long term programs against chronic malnutrition have been set up in 60 countries; development of milk processing plants and development and production of high-protein cereal-legume food mixtures from available food sources have been aided.

In 1972 more than 15,000 hospitals and urban and rural health centers in 94 countries received UNICEF materials and supplies, almost half of its funds the \$3.4 million collected by Halloween trick or treaters.

The U.N. Declaration on the Rights of the Child states that "Mankind owes to the child the best that it has to give." Can you quarrel with that? About 4 million American children will later this month be helping those less fortunate than themselves by ringing doorbells to fill their bright orange and black UNICEF cartons. It should remind us that the Child of Bethlehem, become a man, said, "Of such is the Kingdom of Heaven."

J.B.T.

Heritage—American Style

One of the problems of a monthly publication is that it isn't much of a disseminator of news, because anything that happens just after we go to press will not, unless it is a really hot item, see the light for 7 or 8 weeks. Two weeks is the absolute minimum, and that causes a real crisis in production. We have broken into the production routine only twice in the 33 issues I have edited, the most recent being in the August issue to answer an editorial in the *Nashville Tennessean*, which your leadership felt to be urgent. The other had to do with (you guessed it) PSRO.

All this is by way of saying that unless you had radio failure in some dim recess of the earth, or had a bout of encephalitis, you have known for some time that our nation has a new President, following the resignation of his predecessor (and particularly in light of subsequent events, may God help them both!).

The events in Washington for the past year have been extensively documented—though I'm not sure we'll ever know what really happened—and a lot of prejudiced comment made pro and con, as well as an occasional lucid statement accurately reported. In the midst of it all, however, the thing which stands out clearly as the overriding consideration, outweighing all others, is the assurance to ourselves and to our friends abroad that our form of government works! It

is difficult to imagine a greater strain on a government than the one to which ours has been subjected over the past year. We have seen the resignation of the Vice-President, and then the President, so that the man who is now our President was appointed, and not elected to that office. Yet through it all the government has continued to function in a reasonably normal manner during a period which has produced crisis after crisis, both domestic and in countries over the world—and with all that, we have seen President Ford, who less than a year ago was a Congressman from Michigan, step in and take over almost without missing a beat.

I don't know about you, but it's thrilling to me, and I am more impressed than ever by the wisdom of the men who wrote our Constitution and set up our country's government. The beauty and practicality of the checks and balances between the Executive, Legislative, and Judiciary branches have never been more elegantly demonstrated. The man in the most powerful position in the world—still subject to the law.

There is one thing which should have become abundantly clear in all of this, and a lesson to the planners of our Bicentennial celebration. This nation was not founded on revolution but on law. Those who have dwelt too much on 1776 as our nation's birthday should keep in mind that putting forward the Declaration of Independence as our birthright may be setting a dangerous precedent. The American Revolution was the last resort of responsible people, entered into with much thought and prayer, to right a series of wrongs extending back for 50 years or more, and it was viewed by most colonists, when it began in April, 1775, as nothing more than a means to that specific end. Most in fact did not then view it as necessarily leading to permanent separation from England, and none as an invitation to anarchy. Our real birthright was hammered out through fourteen years of war and peace, to which the Declaration of Independence was only the preamble. It was a 13-year gestation period, so to speak. We were conceived on July 4, 1776, but our birthday was on Sept. 13, 1789, when the ninth state ratified the Constitution, making union a reality. There were many childhood crises, a couple near-fatal. Certainly except for the "late unpleasantness between the States" we have never faced a time more potentially disastrous than the past few months—and we appear to have come through, if not unscathed, at least intact, and perhaps even stronger if we never lose sight of

our heritage based in law, which has triumphed magnificently. Revolution is a last resort, used only after all other means have failed, and is never to be entered into as a lark, as some of its modern proponents seem to imply.

Our founders saw from history that a true democracy will not work, human nature being what it is, leading to chaos and ultimately to anarchy. They formed instead a republic, with its representative form of government. But a republic, at least as much as a democracy, requires the participation of every member, and works best with a viable two party system, which we have had in Tennessee for several years now, in fact as well as in name.

Next month we will elect a Governor to serve us for the next four years. It is your duty and your privilege to support the candidate of your choice. It is your heritage—which is fragile, and *can* be lost.

J.B.T.



The AMA and NHI

To The Editor:

Under the title "AMA Getting Its Way Again," the *Nashville Tennessean* editorialized on August 27 concerning the unlikelihood of the passage this year of a national health insurance bill. The final paragraph of the editorial says,

"This is unfortunate for the nation, for millions of Americans are finding they can't afford adequate health care at today's rapidly climbing hospital costs. It may also be unfortunate for some congressmen when they go home in mid-October and try to explain to their constituents why they persist in placing the wishes of the American Medical Association above the interests of the people."

The enclosed letter [*printed below—Ed.*] was sent to the editor of the newspaper, who predictably declined to print it.

To the Editor [of the Nashville Tennessean]

Utilizing a combination of innuendoes, half-truths, clever misinterpretations, and outright distortions of fact, your paper consistently seeks to place the blame for all health care problems on the American Medical Association. Your editorial of August 27 typically indicts the American Medical Association for the failure of the House Ways and Means Committee to reach agreement on a National Health Insurance plan.

The American Medical Association has in fact proposed the Mediredit Plan of National Health Insurance which has 185 congressional sponsors, the largest number supporting any of the numerous National Health Insurance proposals. The chief sponsor of the Mediredit Bill is Representative Richard Fulton of the Fifth Congressional District of Tennessee, with whom you certainly must have almost daily contact. Representative Fulton has not changed his mind about Mediredit.

Your editorial of August 27 further implies that the position of the American Medical Association is in conflict with the public interest. The Mediredit Bill would provide comprehensive basic and catastrophic health insurance through a three-pronged approach: (1) payment of the full cost of health insurance for those too poor to buy their own, (2) help those who can afford to pay a part of their health insurance cost. The less they can afford to pay, the more the government would pay, and (3) see to it that no American would have to bankrupt himself because of a catastrophic illness. Is this in conflict with the public interest?

I seriously question your motives in health care reporting and I abhor your irresponsible methods of reporting on such a major issue affecting the public.

JAMES W. HAYS, M.D.
Chairman, Board of Trustees
Tennessee Medical Association

To The Editor:

We are endeavoring to refurnish a Civil War Physician's Office and Waiting Room (at the request of the Miami Purchase Association) . . . a Community non-profit organization.

We urgently desire the following items to refurnish a Civil War Physician's Office and Waiting Room: a small rolltop desk with a brass base or other light and physician's chair, glass faced medicine cabinet, glass faced instrument cabinet, old medical jars of that era, medical chest (small) with drawers for tablets, pills, etc., non-metal tub for Sitz Baths, old chairs, curtains, scales, rag carpeting or rugs, old saddle bag, old lights for office and waiting room, old patient's chairs and settee, two old "Shaker" stoves about three feet tall and wood burning of cast iron, old stethoscope, old brass microscope, etc. Any suggestions will be greatly appreciated. The Academy of Medicine of Cincinnati believes this offers us a unique opportunity to present all visiting groups to this historic village which will reflect medicine's interest. Please address all responses to Clyde S. Roof, M.D., Chairman, Committee on History, Academy of Medicine of Cincinnati, 320 Broadway, Cincinnati, Ohio 45202.

Cordially yours,
EDWARD F. WILLENBORG
Executive Secretary
Academy of Medicine of Cincinnati
320 Broadway
Cincinnati, Ohio 45202

Sickle Cell Anemia in White Persons

To The Editor:

As nearly everyone knows (my cook did not) sickle cell anemia is for all practical purposes confined to the black race. There are rumors that it is not uncommon among the Greeks and other groups along the Mediter-

anean. But we must bear in mind their closeness to Africa.

It would be of interest to know of the first case described in a white person. This case was reported by a Dr. Sonnabech in *The Slobavin Journal of Virology* for December 1700 in which a soldier fighting in the Second Great Northern War was wounded in the thigh by a machine gun bullet. He complained of considerable pain and most of the doctors thought it was the result of the wound but Dr. Sonnabech said it resembled sickle cell anemia. (The boy was anemic—having lost three quarts of blood.) Dr. Sonnabech made a preparation under reduced oxygen tension and sure enough he observed sickling of the red cells. So great was his renown that the Soviets adopted the sickle as part of their national symbol. The doctor was elevated to the rank of 1st Sergeant in the Russian Army and was made an honorary member of the Royal Hematology Society of Warsaw.

In the confusion following the Second Great Northern War this important work was lost to science and was only recently discovered in the rubble of a bombed out library in Cairo, Egypt.

Strangely enough my granddaughter (geneticist) did not believe this!

FRANK L. ROBERTS, M.D.
Memphis and Shelby County Health Dept.
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The JOURNAL takes this opportunity to welcome these new members of the Tennessee Medical Association.

CHATTANOOGA-HAMILTON COUNTY MEDICAL SOCIETY

Joseph S. Atkinson, M.D., Chattanooga
Ramon L. Carroll, Jr., M.D., Chattanooga
James H. Creel, Jr., M.D., Chattanooga
Roberto F. Dominguez, M.D., Hixson
Zoila G. Dominguez, M.D., Hixson
Philip J. Dugan, M.D., Chattanooga
Henry Clay Evans, Jr., M.D., Chattanooga
William B. Findley, M.D., Chattanooga
B. D. Harnsberger, M.D., Chattanooga

DAVIDSON COUNTY MEDICAL SOCIETY-NASHVILLE ACADEMY OF MEDICINE

Robert B. Barnett, M.D., Nashville
Andrew S. Boskind, M.D., Hendersonville
Gerald R. Burns, M.D., Nashville
Samuel H. Dillard, M.D., Nashville
William E. Garrett, Jr., M.D., Nashville
Hollis K. Leathers, III, M.D., Nashville
Ying Tsung Lee, M.D., Nashville
James O. Miller, Jr., M.D., Madison
Warren R. Patterson, M.D., Nashville
James C. Wallwork, M.D., Nashville

KNOXVILLE ACADEMY OF MEDICINE

Edmund F. Tipton, M.D., Knoxville

MAURY COUNTY MEDICAL SOCIETY

Patricia C. Davis, M.D., Columbia

MEMPHIS-SHELBY COUNTY MEDICAL SOCIETY

Mark L. Donnell, M.D., Memphis
George H. Ellis, M.D., Memphis
Thomas N. French, M.D., Memphis
Lloyd E. King, Jr., M.D., Memphis
Michael J. Levinson, M.D., Memphis
James A. Mann, M.D., Memphis
Milton O. Mederios, M.D., Memphis
James H. Powell, M.D., Memphis
Charles F. Safley, Jr., M.D., Memphis
John N. Whitaker, M.D., Memphis

programs and news of medical societies

Knoxville Academy of Medicine

The Academy met at the KAM Headquarters on August 13. The program consisted of an "E" Club meeting and also continuing medical education which included presentations in psychiatry and pediatrics. The Academy met on September 10 and heard a discussion by William D. Tribble, Ph.D., Executive Director of Tennessee Foundation for Medical Care, Inc., who spoke on "PSRO and Related Activities of the Tennessee Foundation for Medical Care."

Marshall County Medical Society

The society met on July 22 and heard a two-hour presentation by Dr. Edward E. Anderson, consulting cardiologist, Lewisburg Community Hospital and cardiologist for St. Thomas and Westside Hospitals in Nashville. He presented supporting data on results of the use of the pacemaker including a summary of improvements in the pacemaker devices.

Nashville Academy of Medicine

The Academy met on September 10 at the Baptist Hospital and heard the two gubernatorial candidates discuss their political platforms which emphasized medicine and health care.

At a recent Board of Directors meeting, the Board gave final approval for the implementation of the Tel-Med of Nashville, a public health information service by telephone to toll-free areas of Nashville and Davidson County; directed that physicians not be listed under specialty headings in the yellow pages of the Nashville telephone directory; and endorsed Academy participation in the Health Careers Fair scheduled for October.

national news

THIS MONTH IN WASHINGTON (From Washington Office, AMA)

Congress's on-again-off-again attempt to write

a national health insurance law are very much off again—so far off that most observers believe there is no chance whatsoever for the 93rd Congress to go down in history as the author of mandated health insurance for all.

The method of financing NHI was again the stumbling block, cutting the House Ways and Means Committee down the middle in a 12 to 12 vote (a tie vote defeats an amendment) and thus scuttled a patchwork proposal by Chairman Mills that seemed to many likely to win Committee passage.

The dramatic tie vote came about the morning of Tuesday, August 20 after the Committee had been called to order by Chairman Mills with the admonishment, "We need to work awfully hard."

Staff began to explain the draft compromise point by point in routine fashion to the Committee when Rep. Joel T. Broyhill (R-Va.), said he believed the Committee should be given the opportunity to vote on alternate methods of financing NHI (as opposed to the Social Security payroll tax) such as the tax credit idea in the AMA Medcredit plan. Mills stalled Broyhill off until the financing section of the compromise regarding mandated employer coverage was completed. The Chairman was about to go on, when Broyhill again reminded Mills that he wanted a vote on his amendment. The AMA tax credit approach would be voluntary and consistent with the free enterprise system, Broyhill said.

The first roll call vote of the Committee defeated the Broyhill proposal 11 to 10. One member—Rep. Bill Archer, (R-Texas)—changed his vote from "present" to "aye" and the motion was tied. Rep. Charles Chamberlain (R. Mich.), walked in and the proposal was ahead 12-11. However, Rep. Herman Schneebeli, (R-Pa.) showed up to cast a "no" vote and the tie 12-12 tally defeated the Broyhill proposal.

Though not apparent at the time, this was the beginning of the end. Rep. Omar Burleson (D-Texas), lost 13-12 on his bid to substitute the financing proposed by the health insurance industry's NHI plan. The crusher came at the afternoon session when the Committee approved 11 to 7 a motion to make voluntary rather than mandatory the compromise provision for the poor and the self-employed. This was a drastic setback for Mills who angrily adjourned the hearings until the next day.

The following morning shortly after the Committee had convened, Chairman Mills threw up his hands, saying: "I've never tried harder

on anything in my life. But we don't have it. I'm not going to go before the House with a NHI bill approved by any 13-12 vote." He said the staff should try to figure out a different approach, but indicated he believed chances of reaching a future agreement on NHI were dim.

The forced abandonment of his compromise plan was a bitter defeat for Mills and for the Administration which had been working closely with the chairman to steer a measure through the Committee. President Ford had urged Congress to give NHI top priority this year.

The up and down fortunes of NHI, which appeared to have a bright chance of passage following Ford's plea and Mills determined push for a compromise, have now slumped to the point where only some drastic intervention by President Ford could save the measure for this year.

NOTE: Votes for the Mediredit financing plan came from Democratic Representatives Phil Landrum (Ga.), Richard Fulton (Tenn.), Omar Burleson (Texas), Sam Gibbons (Fla.), and Joe Waggoner (La.). On the GOP side, the pro-Mediredit votes were Representatives Broyhill (Va.), Jerry Pettis (Cal.), John Duncan (Tenn.), Donald Brozman (Colo.), Donald Clancy (Ohio), Bill Archer (Texas), and Charles Chamberlain (Mich.).

* * *

Self-employed physicians are about to receive some cheery news from Washington.

The House and Senate have passed and sent to the White House a liberalization of the Keogh law providing tax deferrals on retirement savings of self-employed people.

This means that physicians in this category can immediately start setting aside more money subject to tax deductions in qualified retirement programs. The bill's Keogh plan arrangement is retroactive to July 1, 1974.

There is no threat of a Presidential veto to cast any shadow on the legislation becoming law.

The bill substantially boosts the savings subject to tax deductions. The present Keogh plan allows the self-employed to set aside tax free up to 10 percent of their annual income with a \$2,500 a year maximum. The new law will allow 15 percent of earned income not to exceed \$7,500 a year.

* * *

The American Medical Association has opposed legislation that would eliminate the authority of the Food and Drug Administration to control the kinds and amounts of ingredients in

dietary supplements and other foods for dietary uses.

Appearing before the Senate Health Subcommittee, AMA officials noted that excessive use of vitamins can be harmful and is scientifically unwarranted. Combinations of vitamins should contain only those vitamins shown to be essential in human nutrition.

The witnesses were C. E. Butterworth, Jr., M.D., Chairman of the AMA's Council on Foods and Nutrition, and Vice Chairman Theodore Van Itallie, M.D. "There is no valid evidence to demonstrate that larger amounts of nutrients are beneficial under ordinary psychological conditions," said Dr. Butterworth.

Recent FDA regulations limiting the inclusions of certain vitamins and/or minerals in dietary supplements have aroused the wrath of food-vitamin faddists and prompted introduction of legislation to overturn the FDA's actions.

Restriction of FDA's powers in this field, the AMA officials told the Subcommittee, "would permit an unchecked proliferation of health deception and economic fraud."

* * *

Less than half of the nation's physicians are now accepting assignment for all of their Medicare patients, according to the latest government figures. Deputy Assistant HEW Secretary Stuart Altman revealed the decline in testimony before the House Ways and Means Committee on national health insurance. HEW Secretary Caspar Weinberger later told the Committee a NHI program should carry inducements for physicians to accept the assignment route, but opposed making it mandatory.

* * *

President Ford met with American Medical Association officials at the White House the end of August.

They discussed prospects for national health insurance in the current session of Congress and an AMA delegation's recent visit to China.

medical news in tennessee

Dr. T. Albert Farmer Appointed Chancellor Of UT Center for Health Sciences

The University of Tennessee Board of Trustees has appointed Dr. T. Albert Farmer as Chancellor

of the University of Tennessee Center for Health Sciences in Memphis.

Dr. Farmer will take over at Memphis from Dr. Edmund Pellegrino who resigned to become Chairman of the Board of Yale University-New Haven Medical Center. Dr. Farmer has been Dean of the College of Medicine in Memphis. He joined UT's five-campus system in 1972 after serving as associate executive dean of the University of Alabama School of Medicine in Birmingham.

Dr. Farmer also serves as vice president for administration for the University of Tennessee system and he is expected to continue in that position until a successor is named.

UT Medical Units Name Changed

The University of Tennessee Board of Trustees has changed the name of the University of Tennessee Medical Units to the University of Tennessee Center for Health Sciences.

The Center comprises the colleges of Basic Medical Sciences, Community and Allied Health Professions, Dentistry, Medicine, Nursing, Pharmacy and the Graduate School (Medical Sciences).

Vice-Chancellor for Medical Affairs Appointed At Vanderbilt

Vernon E. Wilson, M.D., a nationally known leader in medical education, has been appointed vice-chancellor for Medical Affairs at Vanderbilt University, Chancellor Alexander Heard announced. The appointment will be effective Nov. 1.

Dr. Wilson, 59, is presently professor of community health and medical practice, and professor of pharmacology at the University of Missouri in Columbia. He served as administrator of Health Services and Mental Health with the U.S. Department of Health, Education and Welfare from 1970 to 1972.

For the period of 1968 to 1970 Dr. Wilson was vice president for Academic Affairs at the University of Missouri, and from 1967 to 1968 he served as executive director of Health Affairs for that university. His other administrative experience includes being dean and director of the Missouri Medical Center from 1959 to 1967. Prior to that he had been acting dean of the School of Medicine and acting director of the Medical Center at the University of Kansas.

Dr. Wilson is chairman of the Internship Re-

view Committee of the Association of American Medical Colleges (AAMC). He has served as chairman of the Commission on Health Professions, National Association of State Universities and Land-Grant Colleges. Other responsibilities include service with the VA Committee on Exchange of Medical Information, the Council on Federal Relations of the Association of American Universities, American Board of Family Practice, Executive Council of the AAMC, Board of Directors of the United Health Foundation, Advisory Council on Health Research Facilities of the National Institutes of Health.

Dr. Wilson earned the B.S. (1950), M.S. (1952), and M.D. (1952) degrees at the University of Illinois in Chicago. He is married to the former Ula Rhone of Des Moines, Iowa, and the couple has a grown son and daughter.

Batson Receives Appreciation Award

Acting Dean Allan Bass of the Vanderbilt School of Medicine on August 28 presented a resolution of appreciation to Randolph Batson, M.D., vice-chancellor for medical affairs development, on behalf of the school's executive faculty.

Batson, who was appointed dean of the School of Medicine and director of medical affairs in 1963, was honored for "the decade of leadership and service" to the school.

"For over eleven years," the resolution stated, "Dr. Batson has guided the rapid growth and development of the School, maintaining and further strengthening the standards of excellence which have been the hallmark of the Vanderbilt School of Medicine since its establishment."

The resolution noted that while Batson was dean the size of the entering class has been increased more than sixty-five percent, with a corresponding growth in the size of the faculty. Batson was also praised for his leadership in providing for new endowed chairs, for major new construction, and for growth of new programs in research, education, and patient care.

Batson received the B.A. and M.D. degrees from Vanderbilt in 1938 and 1942, respectively. He joined the faculty in 1947 and in 1971 was appointed vice-chancellor of medical affairs. In addition to his administrative positions he has been professor of pediatrics in the School of Medicine.

In September he began a sabbatical leave to study health care systems in several countries in Europe and Asia.

V.U. Receives Epilepsy Grant

Vanderbilt University has received from the National Institute of Neurological Diseases and Stroke of the National Institutes of Health a \$70,000 grant for a feasibility study of the comprehensive needs of epileptics in the Middle Tennessee area.

One result of the study may be to establish a Comprehensive Epilepsy Program in Nashville. As one of eleven studies being funded throughout the nation, Vanderbilt will be eligible to apply for \$1 million dollars or more to establish the center.

The program for the center would include support for research in health care delivery and the diagnosis and treatment of epilepsy, and it would rehabilitate and educate persons with epilepsy to allow them to return to their communities better prepared to cope with their environment. The program would also provide for training and education of physicians and other professionals in epilepsy research and treatment and would establish a broad program for public education about epilepsy.

Vanderbilt Medical Center now operates a limited Epilepsy Center that is funded jointly by the State of Tennessee and the university. Five other centers in the area also offer medical services to epileptics: Meharry Medical Center, the Veterans Administration Hospital, Metropolitan General Hospital, Clover Bottom Development Center, and Central State Psychiatric Hospital. These centers serve a population of 2 million in 35 counties, where there are an estimated 7500 epileptics.

Epileptics in rural areas either must travel to centers like Nashville or do without complete services. The feasibility study would study the problems of delivery health care services to patients.

personal news

DR. RANDOLPH BATSON, Nashville, vice chancellor of medical affairs development at Vanderbilt University School of Medicine and former vice chancellor for medical affairs and dean of the medical school, has begun a sabbatical leave from Vanderbilt.

DR. JOSEPH J. DODDS, Chattanooga, has been named to the advisory committee to the director of the National Institutes of Health.

DR. MARY B. DUFFY, Knoxville, has been presented the Kiwanis International Distinguished Service Award,

as a token of appreciation for Leadership in Public Health.

DR. DAVID L. GREENE, Morristown, has been elected chief-of-staff of Doctors Hospital.

DRS. BEN D. HALL, W. D. HANKINS and WALTER McLEOD, all of Johnson City have been appointed to the Board of Memorial Hospital, Inc.

DR. ROBERT C. HARTMANN, Nashville, has assumed the position of Professor of Medicine, Chief of the Section of Hematology/Oncology at the University of South Florida College of Medicine.

DR. RENALDO OLAECHEA, Knoxville, has won commendation from the Heart Association for local work in the Association.

DR. JOE PARKER, Memphis, has been elected president of the Tennessee Pediatric Society.

DR. JAMES W. PATE, Memphis, has been named Chairman of the Department of Surgery at the University of Tennessee College of Medicine.

DR. JAMES M. PERRY, JR., Nashville, has been appointed to the Teaching Scholarship Program of the American Heart Association.

DR. KENNETH J. PHELPS, Lewisburg, has been appointed clinical instructor in the Department of Preventive Medicine at Vanderbilt University School of Medicine.

DR. M. M. YOUNG, Chattanooga, who recently resigned from the Chattanooga-Hamilton County Health Department, has accepted a position with the Joint Commission on Accreditation of Hospitals.

announcements

CALENDAR OF MEETINGS
NATIONAL

1974	
Oct. 19-24	American Academy of Pediatrics, St. Francis and San Francisco Hilton, San Francisco, CA
Oct. 20-22	American College of Preventive Medicine, New Orleans, LA
Oct. 20-23	American College of Gastroenterology, Americana, Bal Harbour, FL
Oct. 21-25	American College of Surgeons, 60th Annual Clinical Congress, Miami Beach, FL
Oct. 24-27	American Academy of Child Phychiatry, Fairmont, San Francisco, CA
Oct. 27- Nov. 1	American Society of Plastic and Reconstructive Surgeons, Shamrock Hilton, Houston, TX
Nov. 3-7	American College of Chest Physicians, The Marriott, Rivergate, New Orleans, LA
Nov. 7-9	Southern Thoracic Surgical Association, Williamsburg Inn and Lodge, Williamsburg, VA
Nov. 9-14	American Association of Blood Banks, Disneyland Hotel, Anaheim, CA
Nov. 9-14	American Society of Maxillofacial Surgeons, Shamrock Hilton Hotel, Houston, TX

Nov. 17-20 Southern Medical Association, Marriott Motor Hotel, Atlanta, GA

Nov. 18-22 American Heart Association, Fairmont, Dallas, TX

Nov. 21-24 American Association for Clinical Immunology and Allergy, Pier 66, Ft. Lauderdale, FL

Nov. 30- Dec. 4 American Medical Association, Portland, OR

Dec. 1-6 Radiological Society of North America, Palmer House, Chicago, IL

Dec. 7-10 American Society of Hematology, Marriott, Atlanta, GA

Dec. 7-12 American Academy of Dermatology, Palmer House, Chicago, IL

Dec. 9-12 Southern Surgical Association, Boca Raton Hotel and Club, Boca Raton, FL

1974

STATE

Nov. 2 Tennessee Licensure Examination for Medical Laboratory Personnel. Applications available from: Laboratory Licensing Service, Room 358, Capitol Hill Bldg., Nashville, TN 37219

Nov. 6-8 Tennessee Academy of Family Physicians, River Terrace Hotel, Gatlinburg, TN

ANSWERS TO THE COOPER REVIEW (from page 852)

1. TRUE. Peptic strictures and hiatal hernias are frequently associated. While pressure in the lower esophageal sphincter area may be very important in determining the presence of peptic esophagitis, it is difficult to dispel the association of peptic esophagitis, stricture formation, and hiatal hernias.
2. FALSE. Achalasia, being a motor disturbance of the esophagus, may be associated with a few lbs. of weight loss, but rarely profound weight loss. The reason for this is that achalasia may be intermittent over many, many years; and, thus, nutrition is usually maintained.
3. a. FALSE. While a variety of special diets have been advocated by various people for MS patients, there is no convincing evidence that any of them are helpful in this condition. Most authorities agree that an adequate balanced diet is all that should be advised for these patients.
- b. FALSE. Although it is fairly common for MS patients to receive frequent vitamin B12 injections from their physicians, there is no good evidence that such therapy affects this condition in any way. Virtually all authorities in the field agree that treatment of this sort is not indicated.
- c. FALSE. While multiple vitamin therapy for such patients is probably of no harm, it is generally agreed that no benefit can be expected from the administration of large doses of vitamin E or any other vitamins to these patients. The average patient should obtain adequate quantities of all the essential vitamins from a balanced nutritious diet as indicated above.
- d. TRUE. ACTH and/or Prednisone therapy should ordinarily be reserved for short courses of such drugs when exacerbations of the disease occur. Most physicians would advocate the administration of 60 to 80 units of ACTH gel intramuscularly each day for two to three weeks under such circumstances. This therapy is usually tapered off gradually over a period of several days at the end of that time. There seems no good indication for long term steroid therapy in these patients under ordinary circumstances.
4. Both tests have value.
An untreated case of systemic lupus erythematosus (SLE) will generally show both a positive LE cell

preparation and an Antinuclear Antibody test (ANA). The ANA test is a very sensitive test and is more objective than the LE prep. The ANA test offers the additional benefit of quantitation, which varies with disease activity. However, the LE prep has much greater *specificity* for SLE.

The value of both tests is very dependent upon the proficiency of the laboratory. The LE prep is relatively tedious and requires the painstaking examination of a stained blood film by a highly skilled technologist. The significance of a positive LE preparation is so great that all positive tests should be checked by a hematologist or clinical pathologist before release of the report. The ANA test requires considerable technical ability in the use of fluorescent microscopy and the use of cell smears that easily deteriorate. Fresh mouse liver preparations are used at Cooper Hospital because of relative constancy of antigenic substrate from animal to animal and resulting in sharper immunofluorescent patterns.

Any positive ANA test is considered significant, but positive titers of more than 1:40 are of greatest diagnostic significance. A negative ANA test or a titer of less than 1:40 in an untreated patient virtually excludes the diagnosis of SLE. Over 90% of patients with SLE show a positive ANA test with a titer of 1:80 or higher. The height of the positive titer usually reflects disease activity.

The patterns of the ANA test suggest but are not specific for the diseases listed:

Speckled—SLE or systemic sclerosis

Homogenous—inactive lupus, rheumatoid arthritis

Nucleolar—systemic sclerosis

Peripheral (shaggy rim)—active SLE

5. e. Obtain apical lordotic views of the chest. Shoulder pain is a frequent early manifestation of a Pancoast tumor of the lung, secondary to brachial plexus involvement. Early, these lesions are often missed, and often require special attention to the apical area to detect them. The early Horner's syndrome should be a clinical hint that there is something going on in this region secondary to stellate ganglion involvement.

References

- Bartholomew, BA: *Amer J Clin Path*, 61:495, 1974
- Burrows, S and Domako, E: *J Med Soc NJ*, 68:647, 1971
- Husain, M, et al: *Amer J Clin Path*, 61:59, 1974
- Ritchie, RF: *Lahey Clin Found Bull*, 20:95, 1971



continuing education opportunities

The continuing medical education accreditation program of TMA has full approval by AMA's Council on Medical Education. If the continuing medical education program of your hospital or medical society is accredited by TMA's committee, you may receive for your attendance at its functions Category 1 credit for the AMA Physician's Recognition Award. If you wish information as to how your hospital or society may receive accreditation, write: Director of Continuing Medical Education, Tennessee Medical Association, 112 Louise Avenue, Nashville, Tennessee 37203.

Clinical Training Program For Practicing Physicians

Opportunities for advanced clinical education for physicians in family practice and in various subspecialties have been developed by the School of Medicine and the Division of Continuing Education of Vanderbilt University. The practicing physician, with the guidance of the participating department chairman, can plan an individualized program of one to four weeks to meet recognized needs and interests. The experience will include contact with patients, discussion with clinical and academic faculty, conferences, ward rounds, learning individual procedures, observing new surgical techniques, and access to excellent library resources. Experience in more than one discipline may be included.

Participating Departments and Divisions

Anesthesiology	Bradley E. Smith, M.D.
Medicine	Grant W. Liddle, M.D.
Cardiology	Gottlieb C. Friesinger, III, M.D.
Chest Diseases	James D. Snell, M.D.
Dermatology	Robert N. Buchanan, Jr., M.D.
Endocrinology & Diabetes	Grant W. Liddle, M.D.
Gastroenterology	Steven Schenker, M.D.
Hematology	Robert C. Hartmann, M.D.
Infectious Diseases	Zell A. McGee, M.D.
Renal Diseases	H. Earl Ginn, M.D.
Clinical Pharmacology	John A. Oates, M.D.
Neurology	Gerald M. Fenichel, M.D.
Obstetrics & Gynecology	Paul W. Griffin, M.D.
Pathology	Virgil S. LeQuire, M.D.
Pediatrics	David T. Karzon, M.D.
Psychiatry	Marc H. Hollender, M.D.
Radiology	John R. Amberg, M.D.
Surgery	
General	H. William Scott, Jr., M.D.
Neurological	William F. Meacham, M.D.
Ophthalmology	James H. Elliott, M.D.
Oral	H. David Hall, D.M.D.

Pediatric	James A. O'Neill, M.D.
Plastic	John B. Lynch, M.D.
Thoracic & Cardiac	Harvey W. Bender, M.D.
Urology	Robert K. Rhamy, M.D.
Cancer Chemotherapy	Vernon H. Reynolds, M.D.

ELIGIBILITY: All licensed physicians are eligible.

ADMINISTRATIVE FEE: \$200.00 per week.

CREDIT: American Medical Association Physician's Recognition Award and American Academy of Family Physician's Continuing Education accreditation.

APPLICATION: For further information and application, contact:

Paul E. Slaton, M.D., Director, Continuing Education
305 Medical Arts Building
Nashville, TN 37212 Tel. 615-322-2716

Third Annual Symposium: Topics in Internal Medicine

Sponsored by The Knoxville Society of Internal Medicine and the Department of Medicine, The University of Tennessee, Memorial Research Center and Hospital

Auditorium. The University of Tennessee Memorial Research Center and Hospital, 1924 Alcoa Highway, Knoxville, TN October 18, 1974

For Information write:

Richard L. Whittaker, M.D.
U.T. Memorial Research Center & Hospital
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The University of Tennessee College of Medicine Continuing Education Courses 1974-1975

Oct. 25	Medicine with Religion. U.T. Medical Units
Nov. 6-7	Building Psychotherapy Skills. U.T. Medical Units
Nov. 20-21	Emergency Medicine, U.T. Medical Units
December 6-7	Otolaryngology for the Family Physician, U.T. Medical Units
Feb. 19-20	Office Gynecology, U.T. Medical Units
Mar. 8-9	Obstetric Anesthesia, U.T. Medical Units
Mar. 9-12	Basic Principles of Rhinoplasty, U.T. Medical Units
Mar. 17-22	General Review Course, U.T. Medical Units
April 19-20	Pediatric Anesthesia, U.T. Medical Units
May 15-16	Office Orthopedics, U.T. Medical Units
May 19-23	Intensive Review of the Science of Anesthesiology, U.T. Medical Units
May 28-31	Clinical Electrocardiography, Paris Landing State Park Inn, Buchanan, Tennessee

Schedule for Upcoming NCME Programs

- Oct. 7-
Oct. 20
- EARLY PROSTHEIC FITTING FOR CONGENITAL DEFECTS OF THE EXTREMITIES, with Charles H. Epps, Jr., M.D., Professor and Chief of Orthopedic Surgery, Howard University College of Medicine, Washington, D.C.
- CORTICOSTEROIDS: TREATMENT FOR THREE CONNECTIVE TISSUE DISEASES, with Richard H. Ferguson, M.D., Associate Professor of Medicine, and Head of a Section of Rheumatology, Mayo Clinic and Mayo Foundation, Minnesota.
- OFFICE TREATMENT OF SKIN CANCER, with Rex A. Amonette, M.D., Chemosurgeon, member of the Department of Dermatology, University of Tennessee College of Medicine, Memphis.
- Oct. 21-
Nov. 3
- I WANT TO DIE, with Henry D. Abraham, M.D., Clinical Instructor of Psychiatry, Harvard Medical School, and Chief, Marlborough-Westborough Unit, Westborough State Hospital, Westborough, Massachusetts; and Gerald L. Klerman, M.D., Superintendent, Erich Lindemann Mental Health Center, Department of Mental Health, Commonwealth of Massachusetts.
- RESPIRATORY DISTRESS SYNDROME OF THE ADULT: TREATMENT WITH PEEP, with Robert M. Rogers, M.D., Professor of Medicine, Associate Professor of Physiology, and Chief of the Pulmonary Disease Section, University of Oklahoma Health Sciences Center, Oklahoma City.
- DIAGNOSIS OF LEARNING DISABILITIES, with Dorothy L. DeBoer, Ph.D., Director, Learning Disabilities Center, Mercy Hospital and Medical Center, Chicago; and Lowell M. Zollar, M.D., pediatrician and Pediatric Consultant to the Learning Disabilities Center, Mercy Hospital and Medical Center, Chicago.

(Program scheduling subject to change)

For more information about NCME, write The Network for Continuing Medical Education, 15 Columbus Circle, New York, New York 10023.

Audio-Cassette Directory Available

To aid the physician in locating little-known but often useful programs, Cassette Information Services of Los Angeles has published its 1974 Directory of Spoken-Voice Audio-Cassettes.

The CIS Directory is not a catalog, but rather a compendium of program titles and subjects that can be found on audio-cassettes, a brief description of each (including price), and from whom the tape or more information may be obtained. The directory itself is available for \$5.00 from Cassette Information Services,

Box 17727, Los Angeles, CA 90057.

University of Louisville School of Medicine Symposium on Drugs in the Newborn

The Department of Pediatrics, University of Louisville School of Medicine, presents its Eighth Annual Newborn Symposium, November 7 and 8, 1974, to be held at the Health Sciences Center Auditorium, Louisville, Kentucky.

Dr. Virginia Apgar will deliver the 1974 Tenth Annual Louisville Pediatric Lecture on November 6.

For information write: Dr. Billy F. Andrews, 200 East Chestnut Street, Louisville, KY 40202.

The American College of Physicians Postgraduate Courses

NEW DEVELOPMENTS IN DIAGNOSIS AND TREATMENT OF DISEASE WITH RADIONUCLIDES, University of Michigan Medical Center, Towsley Center, Ann Arbor, MI, Oct. 21-25.

RHEUMATIC DISEASES, Harvard Medical School and Peter Bent Brigham Hospital, Jimmy Fund Auditorium, Children's Hospital Medical Center, Boston, MA, Oct. 21-25.

VALVULAR HEART DISEASE—University of New Mexico School of Medicine, Albuquerque, NM, Oct. 24-26.

CRISIS MEDICINE, Albany Medical College, Hyatt House, Albany, NY, Oct. 28-31. Info: Registrar, Postgraduate Courses, ACP, 4200 Pine Street, Philadelphia, PA 19104.

INNOVATIONS IN THE DIAGNOSIS AND MANAGEMENT OF ACUTE MYOCARDIAL INFARCTION, Jefferson Medical College, Philadelphia, PA, October 30-Nov. 1. Info: Registrar, Postgraduate Courses, ACP, 4200 Pine Street, Philadelphia, PA 19104.

ADVANCES IN DIAGNOSIS AND TREATMENT IN CLINICAL MEDICINE, University of California School of Medicine and Harbor General Hospital, Torrance, CA, to be held at Los Angeles Marriott Hotel, Los Angeles, CA, Dec. 2-6. Info: Registrar, Postgraduate Courses, ACP, 4200 Pine Street, Philadelphia, PA 19104.

The Postgraduate Medical Education Committee of the American College of Chest Physicians 1974-1975 Postgraduate Programs

The continuing education program for physicians sponsored by the American College of Chest Physicians has been accredited by the Council on Medical Education of the American Medical Association and is acceptable for credit toward the AMA Physician's Recognition Award.

For further information contact: Bradford W. Claxton, M.Ed., Director of Continuing Education, American College of Chest Physicians, 911 Busse Highway, Park Ridge, Illinois 60068.

1974

October 21-November 1

"A National Seminar for Registered Nurses Working in Critical Care"

Location: Denver, Colorado

November 4
"Critical Care—A Postgraduate Course for Nurses
and Physicians"
Location: New Orleans, Louisiana

1975

February 24-27
"Pediatric Cardiopulmonary Problems—Diagnosis and
Management—Newborn to Young Adult"
Location: Snowmass, Aspen, Colorado

February 24-28
"The Diagnosis and Treatment of Acute and Chronic
Respiratory Failure"
Location: Miami Beach, Florida

March 12-14
"Cardiology for the Practitioner"
Location: Warren, Vermont

April 2-4
"Occupational Pulmonary Diseases"
Location: Morgantown, West Virginia

April 30-May 2
"Pulmonary Disease: The Changing Scene"
Location: Toronto, Canada

June 23-25
"Critical Care—A Postgraduate Course for Nurses
and Physicians"
Location: Nashville, Tennessee

* * *

**School of Medicine
Medical College of Georgia
Augusta, Georgia
1974-1975**

CONTINUING MEDICAL EDUCATION

ADMINISTRATION AND EDUCATION IN THE
CLINICAL LABORATORY
October 18-19, 1974

BASIC NEUROLOGY FOR THE PRACTITIONER
February 20-21, 1975

CLINICAL PSYCHIATRY
February 27-28, 1975

MEDICINE AND RELIGION
March 10, 1975

MAKING SURGICAL DECISIONS
March 13-14, 1975

GASTROINTESTINAL DISEASES
The Atlanta Marriott, Atlanta, Georgia
March 20-22, 1975

INFECTIOUS DISEASES—DIAGNOSIS AND
MANAGEMENT
April 3-4, 1975

RECENT ADVANCES IN OPHTHALMOLOGY
The Cloister, Sea Island, Georgia
May 19-21, 1975

INTERNAL MEDICINE
Buccaneer Motor Lodge, Jekyll Island, Georgia
June 12-14, 1975

PHYSICIANS CONTINUING EDUCATION SERIES
Dalton, Georgia
January 9, February 13, March 13, and April 3, 1975

PHYSICIANS CONTINUING EDUCATION SERIES
Dublin, Georgia
October 22, and November 26, 1974;
January 28, February 25, and March 25, 1975

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PART I

TREATMENT AND REHABILITATION

November 25-27, 1974

Waldorf-Astoria Hotel—New York City

PART II

DETECTION AND DIAGNOSIS

May 1-3, 1975

The Denver Hilton—Denver, Colorado

These professional educational conferences will be
acceptable for Credit Hours in Category I for the
Physician's Recognition Award of the American Med-
ical Association and for Elective Hours by the Ameri-
can Academy of Family Physicians.

**University of Miami School of Medicine
CME Courses**

**HUMAN DISEASE RELATED TO FOOD
AND CHEMICAL SENSITIVITY**

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\$150 physicians in practice; \$75 physicians in training;
\$100 Nurses

**DYNAMICS OF PROGRESSIVE
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PRACTICAL ASPECTS**

January 2-7, 1975

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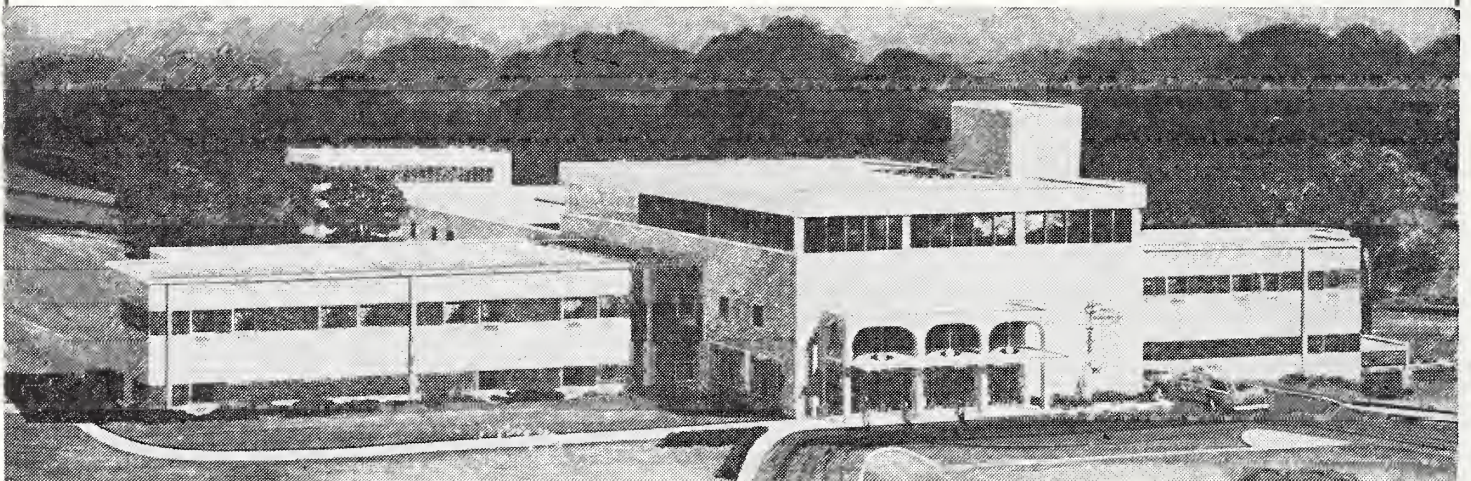
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Weinberger Condemns Medicare and Medicaid Patients To Second-Class Medicine*

by LLEWELLYN H. ROCKWELL, JR.**

Private Practice, the journal of socio-economic medicine published by the Congress of County Medical Societies, has announced its total opposition to the recently announced drug plans of the Department of Health, Education and Welfare. As outlined by Secretary Caspar W. Weinberger, HEW would limit reimbursements for prescription drugs provided under Medicare and Medicaid to "the lowest cost at which the drug is generally available." This would usually be the so-called generic drug rather than a brand-name pharmaceutical.

Testifying on December 19th before Senator Edward Kennedy's Senate Health Subcommittee, Mr. Weinberger claimed that this would save taxpayers \$25 to \$60 million dollars between now and the fiscal year ending June 30th.

"We deplore this kind of cheap-drug policy," said Publisher Francis A. Davis, M.D. "It condemns Medicare and Medicaid patients to second-class medical care. The whole notion is based on the mistaken idea that chemical equivalency equals therapeutic equivalency. There are many reasons why this is not so. This kind of short-sighted policy, while it may save some money in the short run, will do so only at a very high cost to the health of American people."

Writing in *Private Practice*, William H. Havener, M.D., of Columbus, Ohio, has noted that:

"The concept of generic prescribing may be defined as the belief that identification of a drug by its chemical name is accurate and sufficient for medical purposes. Generic prescribing is of current legislative interest because of the belief that great economy is possible through the purchase of an accurately named chemical (a generic equivalent) instead of a brand-name medication. Certainly all sensible taxpayers want economy in government, including money spent on health care. However . . . the medical profession op-

poses legislation directing that the least expensive generic equivalent shall be substituted in the filling of a medical prescription.

"How can this apparently inconsistent position be justified? The basic fact is that generic equivalence is a myth. I will cite an illustration of this myth which will be familiar to everyone, then will discuss the problem from a medical standpoint.

"First, let us specify a substance by the accurate generic name 'carbon.' What do we mean? It could be a polished diamond or a chunk of coal. They are generic equivalents, but they are certainly not the same. Since I am an ophthalmologist, I shall use eye drops to illustrate why the concept of generic equivalence is a myth. Let us assume that the name and concentration of a chemical have been designated. Are all eye drops the same if they contain this amount of the chemical?

"Let me outline a few other things that matter before you put this eyedrop in your eye:

A) pH (acidity or alkalinity).

1) Determines degree of dissociation of alkaloids and therefore their availability to penetrate the eye.

2) Related to stability, i.e., how long till it deteriorates and is unusable.

3) Important factor in comfort—whether drops hurt.

B) Sterility.

Use of unsterile generic equivalent during eye surgery could destroy eye through infection.

C) Preservatives.

A variety of chemicals in various concentrations may be added to help retard growth of bacteria. Preservatives may have toxic effects to the eye, improve or hinder absorption of the drug, and are of variable effectiveness. Many incompatibilities exist, in which the preservative may inactivate the medication.

D) Particle size (of suspension).

Larger particles offer less available drug, sediment out of suspension, and may be mechanically irritating.

E) Choice of salt.

The active drug may be combined with a variety of ions, e.g., pillocarpine hydrochloride, nitrate, or salicylate. Each has different incompatibilities and solubilities.

F) Antioxidants and stabilizers.

Addition of appropriate substances will greatly extend the expiration date of unstable

*News release issued January 1974.

**Editor, *Private Practice*, 3035 N.W. 63rd, Suite 299, Oklahoma City, Oklahoma 73116.

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compounds. Conversely, their absence permits rapid deterioration.

G) Viscosity.

A viscous vehicle will greatly prolong contact of the eyedrop with the eye. Some types dry to a protective film on the eyelids and are unusually effective in treatment of lid infections. Other vehicles may be greasy and can be cosmetically or functionally objectionable.

H) Solubility relationships.

A medication form which is more soluble in the vehicle than in the corneal surface will stay in the vehicle and will not be optionally absorbed by the eye.

I) Wetting agents.

Detergent-like additives can greatly enhance drug penetration.

J) Combinations.

Mixtures of active drugs may give an improved effect or have advantages of convenience or economy. They also increase the chance of allergy or other toxicity.

K) Drug form.

Choice of suspension or solution may have advantages of stability or penetration of the medication.

L) Tonicity.

Hypertonic or hypotonic solutions may irritate or even destroy the delicate cells of the eye. I have seen blindness result from irrigation of the interior of the eye with solutions of improper salt concentration.

M) Packaging.

Various containers have advantages of ease of use, breakage resistance, spill-proofing, chemical inertness, size economy, protection from light, etc.

Medications other than eyedrops also have different vehicles:

A) Taste, smell, color, consistency are important in determining the acceptability of the medication to the patient. Will the child (or adult) take his medicine?

B) Purity may vary greatly. U.S.P. requirements specify 85 percent purity for penicillin. Many reputable manufacturers achieve 98 percent purity. "Penicillin" allergy is often due to impurities.

C) Coating of capsules may protect medication against destruction by stomach acids. Prolonged medication effect is achieved by mixtures of granules with coating which will dissolve at various rates. Faulty coatings may not dissolve

at all, permitting the pill to pass through the body with no medical effect at all.

D) Absorption of medication from pills depends on how rapidly they dissolve, the choice of salt used, the stability of the drug in digestive juices, whether it becomes absorbed upon food residues, and a variety of other such factors. As a well recognized example, Chloromycetin (Parke-Davis brand name) is a very effective antibiotic, whereas all other generic equivalents of chloramphenicol (generic name) fail to achieve comparable blood levels of the antibiotic.

E) Deterioration to ineffective or toxic substances may occur. Tetracycline (an antibiotic) dispensed in relatively acid capsules will slowly transform into a deadly kidney poison. Without appropriate (and costly) safeguards, problems do occur.

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WARNINGS: Tetracycline usage during tooth development (last half of pregnancy to eight years) may cause permanent tooth discoloration (yellow-gray-brown), which is more common during long-term use but has occurred after repeated short-term courses. Enamel hypoplasia has also been reported. **Tetracyclines should not be used in this age group unless other drugs are not likely to be effective or are contraindicated.**

Usage in pregnancy. (See above **WARNINGS** about use during tooth development.) Animal studies indicate that tetracyclines cross the placenta and can be toxic to the developing fetus (often related to retardation of skeletal development). Embryotoxicity has also been noted in animals treated early in pregnancy.

Usage in newborns, infants, and children. (See above **WARNINGS** about use during tooth development.)

All tetracyclines form a stable calcium complex in any bone-forming tissue. A decrease in fibula growth rate observed in prematures given oral tetracycline 25 mg/kg every 6 hours was reversible when drug was discontinued.

Tetracyclines are present in milk of lactating women taking tetracyclines.

To avoid excess systemic accumulation and liver toxicity in patients with impaired renal function, reduce usual total dosage and, if therapy is prolonged, consider serum level determinations of drug. The anti-anabolic action of tetracyclines may increase BUN. While not a problem in normal renal function, in patients with significantly impaired function, higher tetracycline serum levels may lead to azotemia, hyperphosphatemia, and acidosis.

Photosensitivity manifested by exaggerated sunburn reaction has occurred with tetracyclines. Patients apt to be exposed to direct sunlight or ultraviolet light should be so advised, and treatment should be discontinued at first evidence of skin erythema.

PRECAUTIONS: If superinfection occurs due to overgrowth of nonsusceptible organisms, including fungi, discontinue antibiotic and start appropriate therapy.

In venereal disease, when coexistent syphilis is suspected, perform darkfield examination before therapy, and serologically test for syphilis monthly for at least four months.

Tetracyclines have been shown to depress plasma prothrombin activity; patients on anticoagulant therapy may require downward adjustment of their anticoagulant dosage.

In long-term therapy, perform periodic organ system evaluations (including blood, renal, hepatic).

Treat all Group A beta-hemolytic streptococcal infections for at least 10 days.

Since bacteriostatic drugs may interfere with the bactericidal action of penicillin, avoid giving tetracycline with penicillin.

ADVERSE REACTIONS: Gastrointestinal (oral and parenteral forms): anorexia, nausea, vomiting, diarrhea, glossitis, dysphagia, enterocolitis, inflammatory lesions (with monilial overgrowth) in the anogenital region.

Skin: maculopapular and erythematous rashes; exfoliative dermatitis (uncommon). Photosensitivity is discussed above (See **WARNINGS**).

Renal toxicity: rise in BUN, apparently dose related (See **WARNINGS**).

Hypersensitivity: urticaria, angioneurotic edema, anaphylaxis, anaphylactoid purpura, pericarditis, exacerbation of systemic lupus erythematosus.

Bulging fontanels, reported in young infants after full therapeutic dosage, have disappeared rapidly when drug was discontinued.

Blood: hemolytic anemia, thrombocytopenia, neutropenia, eosinophilia.

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USUAL DOSAGE: Adults—600 mg daily, divided into two or four equally spaced doses. More severe infections: an initial dose of 300 mg followed by 150 mg every six hours or 300 mg every 12 hours. Gonorrhea: In uncomplicated gonorrhea, when penicillin is contraindicated, 'Rondomycin' (methacycline HCl) may be used for treating both males and females in the following clinical dosage schedule: 900 mg initially, followed by 300 mg q.i.d. for a total of 5.4 grams.

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Children—3 to 6 mg/lb/day divided into two to four equally spaced doses.

Therapy should be continued for at least 24-48 hours after symptoms and fever have subsided.

Concomitant therapy: Antacids containing aluminum, calcium or magnesium impair absorption and are contraindicated. Food and some dairy products also interfere. Give drug one hour before or two hours after meals. Pediatric oral dosage forms should not be given with milk formulas and should be given at least one hour prior to feeding.

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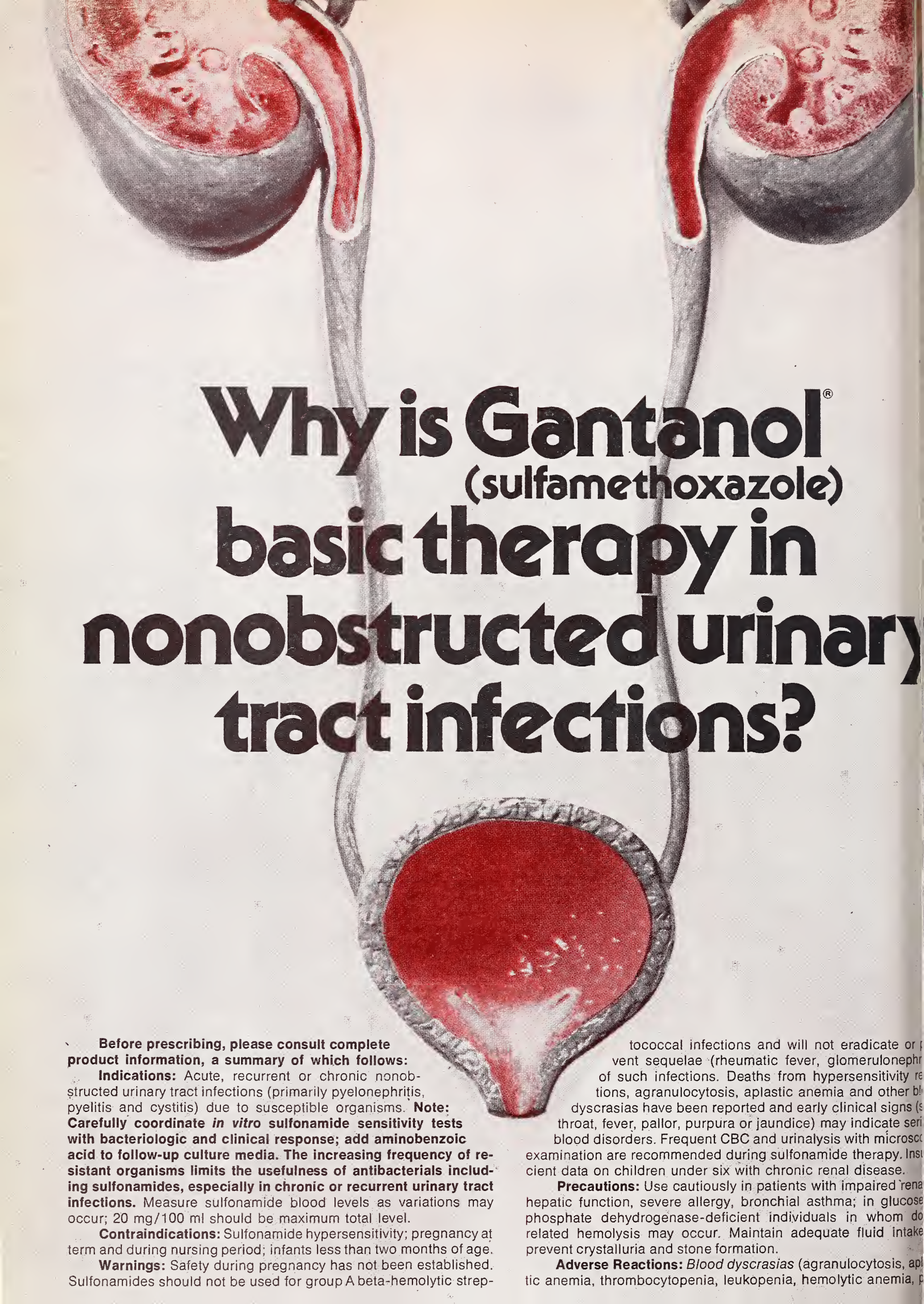
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Adverse Reactions: Blood dyscrasias (agranulocytosis, aplastic anemia, thrombocytopenia, leukopenia, hemolytic anemia, p-

Hypertensive Screening, A Community Effort

DWIGHT R. WADE, JR., M.D., MONTE BIGGS, M.D., IRSHAD AHMAD, M.D., PH.D., M.P.H.

In years past, when faced with health problems of epidemic proportions, the community has mustered whatever resources were available to bring the problem under control. The solutions were not always known, and in some cases, the major effort was aimed at discovering a "cure" which came in the form of an antibiotic, a vaccine, or some other agent capable of neutralizing the threat. Once the means of effectively fighting the epidemic was known, there was no lack of enthusiasm in its application to its known or potential victims. It was in these situations that men like Pasteur, Salk, and Sabin became famous for their historic contributions in the fight against epidemic diseases.

Hypertension is now the scourge that silently ravages mankind in truly epidemic proportions. An estimated 23 million Americans, and among them at least 500,000 Tennesseans, are the afflicted. The present challenge lies not in finding the cure for hypertension, for the means of control is readily available. Rather the task is in finding and placing under proper care those hypertensive persons who are at risk. These include hypertensives who are either undiagnosed or uncontrolled. A recently created national hypertension program¹ has been instituted to fight the problem. It has been in force for over a year; however, very little effect has been felt at the community level.

Drs. Wade and Biggs are in the private practice of Internal Medicine in Knoxville, Tennessee and are closely involved in the Tennessee Heart Association Hypertensive Screening Program. Dr. Ahmad is Assistant Professor of Public Health, Health and Safety Department, University of Tennessee, Knoxville, Tenn.

Financial support for the screening and analysis was provided through grants from the East Tennessee Heart Association and Tennessee Heart Association.

Primarily the battle must be fought at the community level by means of person-to-person contact before significant gains can be shown nationally. Federal plans notwithstanding, each community must marshal its own resources in order to cope most effectively with the problem. A pilot program was launched in 1973 in Knoxville, Tennessee, by the East Tennessee Heart Association to test the hypothesis that such a program could be supported from within the community.

Methods

Four thousand fifty-five persons were screened during the first six months of 1973 in Knoxville, Tennessee, the vast majority of whom were active industrial workers with a mean age of 39.7, and a range of 18 to 70 years. Approximately 90 per cent were Caucasian. A casual sitting blood pressure of more than 160 mm Hg systolic or 95 mm Hg diastolic called for referral to a physician.

Prior to initiation of screening, the endorsement of the local medical association was obtained and a letter explaining the screening program was mailed to each practicing physician in Knox County.

Persons were screened at their place of business. They were first asked to fill out a brief questionnaire. Volunteers, primarily nurses, student nurses, and to a small degree physicians, took casual sitting sphygmomanometric pressures. The first and fifth phase Korotkoff sounds were used to determine systolic and diastolic readings. In case of readings either at or above 160/95, the reading was repeated, usually by a different observer, and if confirmed, the person was told he had an elevated blood pressure and a referral was recommended.

The person thus referred was counseled by a

HYPERTENSION/Wade

registered nurse who was present for questions and counseling. Each referred person was given an American Heart Association pamphlet explaining the nature of hypertension and was asked to make arrangements to see his or her family physician. They were also given a self-addressed envelope to the local heart association so that some data on compliance might be gathered following referred visits to private physicians in the community.

Results

From a total of 4055 persons studied in the sample, 411 (10.1 per cent of the sample) had sitting pressures which exceeded 160 systolic and/or 95 diastolic. An additional 119 persons were discovered who carried a diagnosis of hypertension but who at the time of screening were found to be normotensive and on antihypertensive therapy. These individuals were considered to have *bona fide* hypertension, bringing the total hypertensive group in the sample studied to 530 or 13 per cent.

As shown in Table 1, 189 out of 530 hypertensives were receiving medication. However, only 119 (22.4 per cent) of these 189 were "controlled" as defined by a blood pressure under 160/95; the remaining 70 (13.2 per cent) individuals were "not controlled."

Table 1

Hypertensives found on screening industrial workers among a sample of 4055 individuals.

Workers	Number	Percent
Hypertensives	530	13
Receiving Medications	189	35.6
Under Control	119	22.4
Not under Control	70	13.2
Not Receiving Medication	341	64.4

The characteristics of the group studied who were predominantly white industrial workers, are shown in Table 2.

The incidence of hypertension increased with

Table 2

Characteristics of the sample studied.

Workers	Percent
30 plus hours/week	92
Between the ages 20-59	88
Had a family physician	83
Family history of hypertension	42
History of being on antihypertensive drugs	9.3
Presently on antihypertensive drugs	4.8
Drop-out from therapy	50

each decade of life as shown in Figure 1, beginning at a 1.8 per cent incidence at or below age 20 to a rate of 33 per cent for the 7th decade. The relative proportion of normotensive to hypertensive persons in each decade of life may be seen in Figure 2.

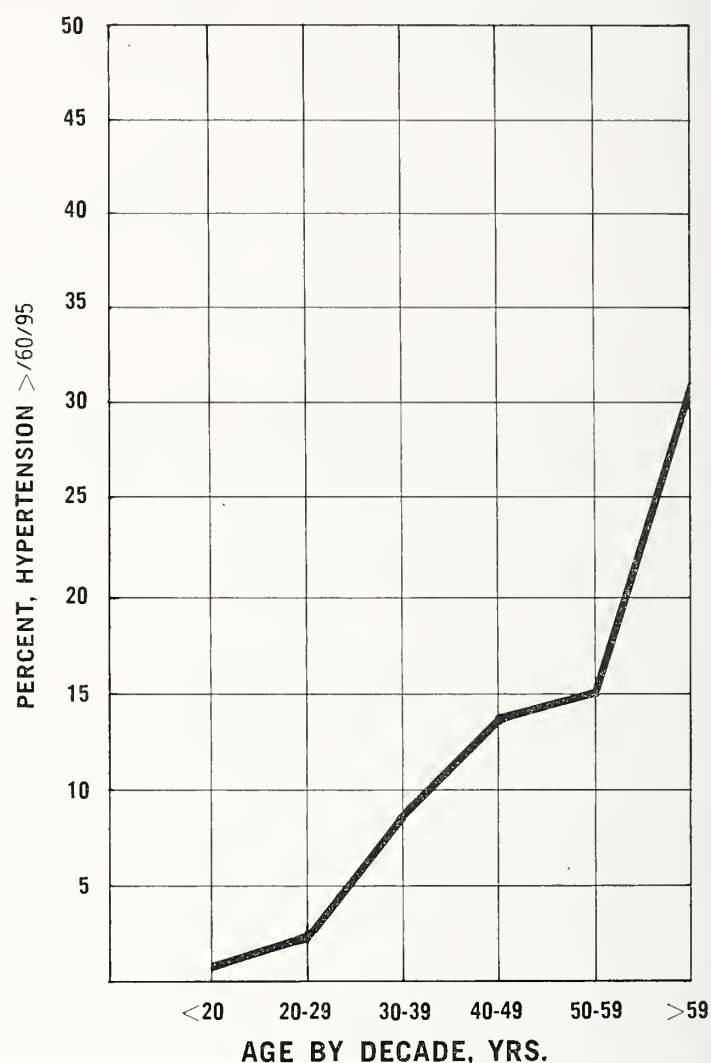


Figure 1

Followup

Of 411 hypertensive patients referred to physicians, only 109 cards were returned within six months of the study, representing approximately 25 per cent compliance. In only 63 of these 109 did the family physician "confirm" the presence of what he considered to be a truly hypertensive blood pressure.

Discussion

When compared to prior studies of similar populations using similar values for hypertensive referral levels, the findings are strikingly similar (Table 3). The only trend showing improvement seems to be in the category of those patients on therapy who have their hypertension under control, that is, below 160/95, on therapy. In the studies shown in the early 1960's, 45 to 47 per cent of those on antihypertensive medications

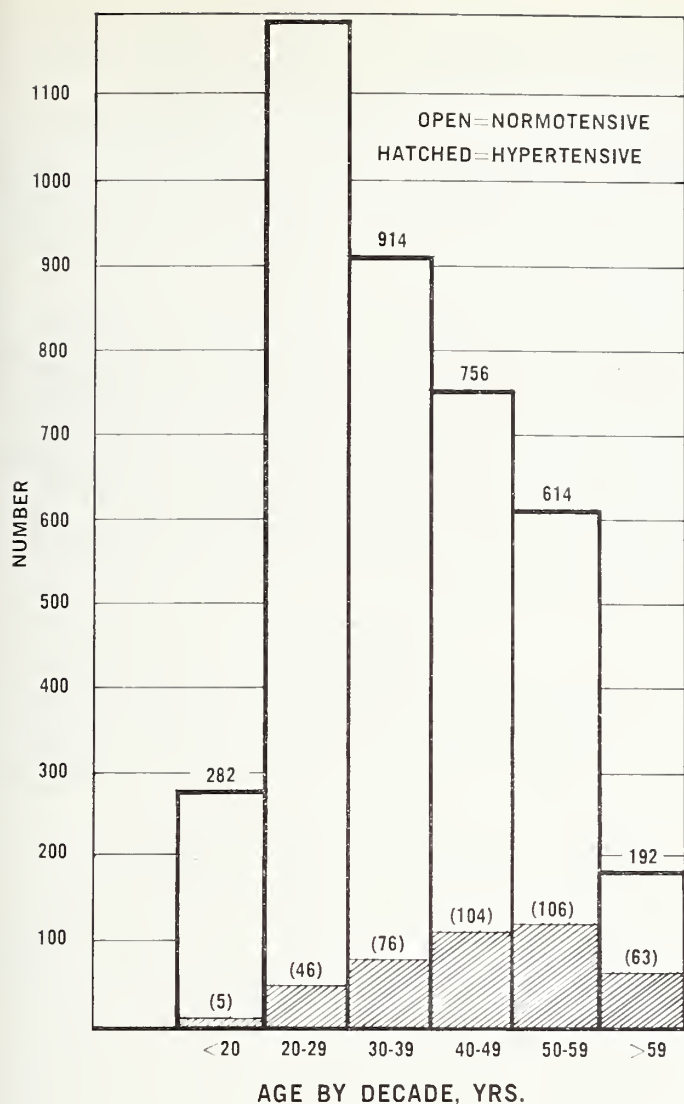


Figure 2

were controlled; whereas, 6 to 12 years later, just over 60 per cent have been found to be controlled. Perhaps this is indicative of better education of both patients and medical personnel. This finding seems at variance with the findings of Schoenberger and Stamler, et al² whose data supported the idea that the V.A. Cooperative Study had shown no impact on improving hypertensive control in Chicago.

The data from the questionnaire, Table 4, in-

Table 3

	Baldwin Co. 1962	Nat'l Health Survey '60-'62	Alameda Co. 1966	Knoxville 1973
Pop. Examined	3,084	6,672	2,495	4,055
% Elev. BP (Over 160/90)	15.5	15.2	13.0	13.7
% On Med.	6.0	6.5	5.9	4.7
% With Elev. BP On Treatment	18.3	23.2	16.9	17.0
Total Hypertensive Pop.	630	1,214	420	530
% Total Hypertensive Pop. On RX	29.7	35.7	35.7	37.0
% Total Hypertensive Pop. Under "Control"	14.0	16.3	22.6	22.5
% Those Receiving Rx Under Control	47.0	45.6	63.3	61.0

dicated that the finding of large numbers of hypertensive patients probably will not greatly threaten the capacity of the health care system, since 83 per cent of blue-collar industrial workers already had family physicians.

Table 4

Questionnaire Results

	Total Sample (4055)	Hypertensive (411)
Have Family M.D.	83.2%	83.2%
BP Check Past 3 Years	82.4%	85.6%
Told had High BP	16.1%	53.3%
Family History of High BP	42.0%	49.6%
Ever Treated for High BP	9.3%	37.2%
Presently on Therapy	4.8%	36.0%

Compliance with referral to the family physician was lower than expected despite careful counseling by the specially designated registered nurse. She was present to talk individually with each person found with a hypertensive blood pressure. Equally disappointing was the finding that only 58 per cent of those referred had their hypertension confirmed by the referral physician. This occurred despite a relatively high cut-off point for "hypertensive" blood pressures of 160/95.

While it is reasonable to assume that a significant number of referred persons saw their physicians and no feed-back occurred for a variety of reasons, it must be also assumed that a large per cent of referred persons, perhaps at least as high as 50 per cent, did not see their physicians as directed.

Table 5

Suggested Criteria for Referral by Age^{3,4,5}

Age (Yrs)	Criteria
3-5	≥ 120/80
6-9	≥ 130/80
10-15	≥ 130/85
16-39	≥ 145/90
40-64	≥ 160/95
≥ 65	≥ 180/110

It should be noted that as of August 1974, over 80,000 Tennesseans have been screened for hypertension by members of the Tennessee Heart Association and other volunteer organizations. The cut-off point for what constitutes proper referral levels in adults has not been standardized throughout the State for purposes of these screening projects. Proposed levels for adults, based upon criteria suggested by Wilbur and Barrow³,

HYPERTENSION/Wade

and Wood, J.E., et al⁴, and for children by Londe⁵, are modified as outlined in Table 5.

It is not proposed that these levels are necessarily termed "hypertensive" for all patients, but rather rough guidelines for *referral* in order that each patient may be given an opportunity for an individual decision by his physician regarding the significance of his blood pressure in light of age, race, and the presence of other risk factors. However, the standardization of criteria for referral could help avoid some confusion as the statewide screening program continues.

Conclusions

1) Local community efforts for large scale screening for hypertensives can be carried out economically by volunteer organizations already in existence.*

2) The percentage of hypertensives within a predominantly industrial population, both known and unknown, controlled and uncontrolled, is similar in Tennessee to those found in other areas of the country.

*Screening in this program costs approximately 11 cents per person screened.

3) Compliance in referral is a major problem in screening. Only one of four patients referred was definitely proven to have complied.

4) Criteria for the level of blood pressure constituting hypertension in a given individual is not widely agreed upon by physicians in practice in this state.

5) As a corollary to statements 3 and 4, it seems clearly evident that a major effort toward education of the public and medical professionals on current concepts in hypertension is warranted.

6) The demand of potential patients referred for hypertensive screening program is not likely to place a significant extra load on the private health care system.

References

1. Cooper, T: The National Hypertension Program. *J. Amer Pharm Assoc*, N513:135, 1973.
2. Schoenberger, JA, et al: Current Status of Hypertension Control in an Industrial Population. *JAMA*, 222:559, 1972.
3. Wilber, JA and Barrow, JG: Hypertension—A Community Problem. *Amer J Med*, 52:653, 1972.
4. Wood, JE, et al: Guidelines for the Detection, Diagnosis, and Management of Hypertensive Populations. *Circulation*, 54:A-263, 1971.
5. Londe, S: Blood Pressure in Children as Determined Under Office Conditions. *Clin Ped*, 5:71, 1966.

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The Use of Unsmoked Tobacco and Intermittent Claudication

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Because of the proven implications of tobacco smoking in the production and exacerbation of peripheral vascular disease, one must wonder whether the use of tobacco in other forms may not result in similar damage. It seemed worthwhile to review in this light our large series of snuff users and tobacco chewers, originally studied for oral cancer. The purpose of this paper, therefore, is to study the possible relationship between intermittent claudication and the use of tobacco in unsmoked forms.

Clinical Considerations

The term "peripheral vascular disease" is widely used but is misleading in that vascular disorders of the extremity are usually a part of a generalized disease process. The problem of vascular disease can be expected to increase in frequency as the general life span of the population lengthens.

The signs and symptoms of arterial disease of the lower extremities are usually determined by the degree of vessel obstruction and the location of the obstruction. If the obstruction develops rapidly with little chance for the development of collateral circulation the signs and symptoms are more acute. Claudication, the major symptom of arterial disease, is produced by a lack of necessary blood supply to the muscles of the leg, resulting in exertional pain characterized by cramping or dull aching in the muscle, usually relieved by rest.

Arteriosclerosis obliterans is a disease characterized by progressive ischemia in patients between the age of 50 to 65 years, occurring some 10 to 15 years earlier in the diabetic patient. It is present more often in males and is limited primarily to the aorta-iliac area in the earlier stages, with later progression to the femoral-popliteal area. The most common symptom is intermittent claudication. Factors that have been considered in the etiology of this disease, as well as other peripheral vascular diseases, include heredity, tobacco, diabetes mellitus and diet.

Treatment in the early stages includes instruc-

tion in the importance of keeping the extremities clean and avoiding any type of trauma. Patients are instructed to stop smoking and are encouraged to engage in walking to develop collateral circulation. Predisposing diseases caused by improper diet and diabetes mellitus are treated. Vaso-dilator drugs are being used with varying success, and lumbar sympathectomy may be helpful in relieving pain at rest. Although reconstructive arterial surgery can be performed when conditions warrant, amputation may be required for the patient with necrotic ulceration and gangrene involving large areas.

Buerger's disease is seen in a younger age group, occurring usually before 40 years. Nearly all of the patients are male and many are tobacco smokers. In this disease the upper extremities may be affected also, helping to differentiate it from arteriosclerosis obliterans. Most investigators believe the relationship of Buerger's disease to smoking to be extremely important. It has been said that if the patient stops smoking completely, arrest of the disease occurs, while if he continues to smoke, the disease will usually progress. There is still much to be learned regarding the cause and effect relationship of tobacco and Buerger's disease.

In 1972 di Cio¹ discussed the etiology, anatomic pathology, symptomatology, pathogenesis, diagnosis, evolution, duration, prognosis and treatment of intermittent claudication. He found the most important predisposing factor to be smoking, the disease rarely occurring in non-smokers under 55 years of age. He believes that tobacco exerts a damaging effect on the arteries no matter how it is used, though it is not known whether nicotine or other toxic constituents are responsible for the damage. He feels that carbon monoxide in cigarette smoke may play an important role.

Methods

The patients chosen for study had as their primary complaint pain in the calf muscles only, which usually indicates obstruction proximal to

the popliteal artery. Obstruction proximal to the deep femoral artery produces pain in the thigh, while pain felt high in the thigh or in the buttock indicates obstruction in the distal aorta or in the iliac arteries. Patients were questioned as to impotence, which is often a sign of disease in the distal aorta. Tissue necrosis and rest pain are extremely serious, indicating that there are different levels of arterial obstruction and that collateral channels as well as the primary blood supply are probably involved.

Pedal, popliteal, femoral and aortic pulses were recorded as absent, minimal or maximal. Bruits when present were observed by auscultation during systole over areas of obstruction. The skin was observed for pallor and blanching when the extremity was elevated. Although there are many variables, it is still of some value to observe capillary filling after the leg has been elevated to determine an index of the vessel obstruction. In the normal patient the skin color will return immediately when the limb is returned to its normal dependent position, while with arterial obstruction there may be a delay of 15 to 30 seconds, indicating severe arterial obstruction.

Results

We have studied some 25,000 snuff users over a period of 20 years and when taking a history from these patients we have asked a question concerning pain occurring upon exertion in the upper or lower extremities. At that time we were not considering snuff or tobacco chewing as a possible cause of intermittent claudication but rather included the question as a part of a systemic survey of the patient.

We have recently completed a ten-year follow-up of an original 1,500 non-smoking patients who were examined with cytology and biopsy techniques because they had shown some change in the oral mucous membranes that might indicate underlying tissue changes from the use of snuff and chewing tobacco.² We have now reviewed

the clinical charts of these patients in their first five and one-half year examination. Many of these patients have used snuff for as long as 60 to 70 years, with an average of 24 years. Of this group none claimed to have pain that could be considered intermittent claudication.

Though we have not studied tobacco smoking and intermittent claudication, we obtained the records of some 50 patients who were suffering from peripheral vascular disease and who presented with intermittent claudication. We attempted to determine the severity of vascular disease by the distance that the patient could walk and at what point he began to demonstrate calf pain. We omitted patients with upper leg or buttock pain because most of these patients demonstrated numerous systemic complaints. In the group of 50 patients with intermittent claudication there were no snuff users or tobacco chewers. All were smokers, and 37 had heavy ethanol intake. Thirteen of the patients also had diabetes mellitus and 17 demonstrated hyperlipidemia.

Conclusions

We conclude from our twenty year study of patients who used unsmoked tobacco that there is no relationship between the use of unsmoked tobacco per se and intermittent claudication. We readily admit that there are many variables to be considered in peripheral vascular disease, but in those patients that we have studied who used unsmoked tobacco only, with no history of diabetes mellitus, heavy ethanol intake, tobacco smoking or dietary problems, we found no cases of intermittent claudication.

We would urge others who have studied snuff users and tobacco chewers to review their cases to determine findings concerning intermittent claudication.

Bibliography

1. di Cio, AV: "Intermittent Claudication." *Prensa Medica Argentina*, 59(32):1212-1221, Sept 8, 1972, Spanish.
2. Smith, JF, et al: "Snuff-Dipper's Lesion." *Arch Otolaryng*, Vol. 92, November, 1970.

MYASTHENIA GRAVIS Vanderbilt University Hospital*

DR. FRANK R. FREEMON: Our patient today, a private patient of Dr. Olson's, has just undergone a thymectomy for the treatment of myasthenia gravis. Mr. Gutnecht will present the case and Dr. Roelofs will discuss the diagnosis and treatment of myasthenia.

MR. MICHAEL G. GUTNECHT: The patient is a 41-year-old housewife who presents with complaints of diplopia, ptosis, and generalized weaknesses. She was well until six years ago when she experienced transient diplopia. She had 3 or 4 episodes each one month in duration during the first year of the illness. In 1967 the diplopia became constant and myasthenia gravis was diagnosed. Pyridostigmine (Mestinon) was prescribed but the patient took this intermittently due to side effects. She had no problems whatsoever driving a car, sewing, or doing housework. In February of 1973, her diplopia worsened and ptosis was first noticed. These symptoms have been constant since that time. She started to notice generalized weakness worsening during the day in March of last year. She did housework for 15 to 20 minutes and then took a short nap, followed by housework, another nap, etc. The weakness has become progressively more severe. Recently the ptosis, diplopia, and weakness are present in the morning upon awaking and become worse as the day progresses. She can now watch TV but is incapable of any exercise. She has no respiratory difficulty but claims to have slight difficulty in swallowing. The patient has a past history of thyroid disease. In 1959 she had a partial thyroidectomy for nontoxic goiter and in 1964 a thyroid nodule was found.

Physical examination on admission to Vanderbilt Hospital showed normal vital signs. The patient appeared as an alert, oriented, middle-aged, white female lying quietly in bed with an apparent dearth of movement. Cranial nerve examination showed pupils unequal in size but reactive to light and accommodation. The left pupil was 5 mm in diameter and the right 4 mm. There was a mild left ptosis. The right palpebral fissure measured 8 mm and the left palpebral fissure 5 mm with lid twitch bilaterally on elevating the eyes from down to primary gaze. The right eye showed diminished abduction and adduction but vertical gaze was full. The left eye showed less abduction than the right with diminished ability to sustain upward gaze. Motor function examination revealed a generalized decreased strength but no atrophy, fasciculation, or tremor. Cerebellar function and sensory examination were normal. All reflexes were symmetrical; no Babinski, grasp, or snout reflexes were present.

Laboratory results included normal chest and skull x-rays. Tomograms of the anterior mediastinum were within normal limits. Thymic venography showed the

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right lateral limb of the thymic vein displaced to the left, suggesting a thymic mass. A thyroid scan revealed a gland with a large content of iodine (35.3 mg in the right lobe) and diffuse enlargement. Endocrine consultation suggested a diagnosis of mild Hashimoto's thyroiditis. The column T4 examination was normal. Electromyography and nerve conduction velocities were within normal limits.

Dr. Olson and I performed an edrophonium test in a single blind manner. The criteria we used was the attempt to sustain vertical gaze. First, 10 mg of saline was injected intravenously; no improvement was noted. Upon injection of 2 mg of edrophonium, a dramatic elevation of the eyes occurred.

The patient was taken to surgery, a thymectomy was performed, and an atrophic thymus was found. Recovery from surgery was uneventful. Respiratory function has been good with normal vital capacity and tidal volume since the operation.

DR. FREEMON: This patient had a special radiologic study, thymic venogram. Dr. Henry Burko, Professor of Radiology, will discuss these films.

DR. HENRY BURKO: Not much is known about thymic venography. We became interested in trying to develop this procedure some years ago. Let me first tell you about how it is done and then I can discuss the normal anatomy and subsequently the anatomy in this case. We use special pre-shaped catheters. We thread these through the femoral vein into the superior vena cava and then advance into the innominate vein. We then probe for the thymic vein. Classically the thymic vein arises to the right of the midline near where the innominate vein enters the superior vena cava. We have an array of catheters and we cannot predict beforehand the size of the innominate vein. Therefore, we try one catheter and if it doesn't work we pull it out and try another. We give ourselves about an hour of probing and if we don't get in by then we call it quits. It actually isn't too uncomfortable for the patient. There is some heat in the neck during the injection but otherwise the patient is not too greatly inconvenienced.

There is considerable variation in the normal venous anatomy. After this case today, we have concluded that the degree of normality is even greater than we had previously thought. Frequently, there is just a single major thymic vein with branches from it entering the thymus. Occasional patients have instead of a single thymic vein an arcade with many small branches. The present case doesn't look like either type of normal thymic venous anatomy. After we got into the thymic vein as we injected we found that all of the vessels that entered the thymic vein

seemed to be on the left side of the mediastinum. Our problem was to decide whether this was a normal disposition of a long tongue of thymic tissue or whether this was displacement of venous structures by a large mass in the mediastinum. In a patient suspected of myasthenia gravis, of course, this mass would generally be considered a thymoma. So, in other words, we had the problem of deciding whether we were dealing with a variation of normal that we had not previously encountered or with a manifestation of mass. We went to the operating room and found to our consternation that the surgeons delivered a long thin tongue of what they said was somewhat atrophic thymic tissue. This long thin tongue corresponded exactly with the venous anatomy. I think we will have to look for evidence of bowing or marked displacement of the venous structures before we have enough courage to say that thymoma is present.

DR. WILLIAM McLAIN, JR.: What about tomography? Did this patient have that examination?

DR. BURKO: She had tomography and on the lateral view behind the sternum there was a hazy soft tissue density which could not be differentiated from normal thymic tissue. The person who interpreted this film thought it represented normal mediastinum.

DR. GERALD M. FENICHEL: Since it is difficult even for the pathologists to tell the difference between thymoma and normal thymus, I wonder if this is something that is beyond the hope of radiological accomplishment.

DR. ROBERT I. ROELOFS: Other than neurologists, who else sends you patients for thymic venography?

DR. BURKO: On occasion a patient will have a mediastinal mass without clinical symptoms of myasthenia gravis. The vast majority of our cases are, however, referred to us by the neurologists because they have myasthenia gravis.

DR. ROELOFS: The topic of myasthenia gravis comes up for discussion in our Neurology Grand Rounds several times a year. It is always an interesting topic. Each discussor gives a different selection of available information depending upon his own personal bias. This is my chance to give you my own bias regarding myasthenia gravis.

First we will consider the clinical presentation of a patient with myasthenia gravis. Weakness involving muscles innervated by cranial nerves or generalized muscular weakness are the pre-

senting symptoms with the patient noticing increasing fatigue toward the end of the day. He complains of diplopia, difficulty in chewing or swallowing, or fatigability and weakness involving other muscles. Friends may notice ptosis developing at the end of the day. Myasthenia gravis tends to have remissions and there may be spontaneous improvement in fatigability as shown by our patient today. In the patient who presents with generalized weakness without ocular signs, it is easy for the physician who first examines him to make a psychiatric diagnosis such as neurasthenia and not consider myasthenia gravis. The history of easy fatigability with relief by rest or the development of bulbar symptoms relieved by rest, should alert one to the possibility of myasthenia gravis. Unfortunately, not every patient gives this history. In some cases, the patients develop ptosis or extraocular muscle paresis which appears to be relatively permanent. Frequently, the degree of involvement of bulbar muscles, especially ocular muscles, does not parallel the degree of involvement of somatic muscles.

A variety of tests can be used to help make the diagnosis of myasthenia gravis. A clinical test, first done by Mary Walker in 1938, and recently reviewed by her in the *British Medical Journal*¹ can be performed easily at the bedside. In a patient with mild weakness, blood pressure cuffs are placed on both upper arms, inflated to above systolic pressure and the patient then briskly exercises the forearms until they are tired. Following that, the blood pressure cuffs are released and the patient observed closely. After about a minute and a half, increased weakness may be noticed by the patient and the observer with increased ptosis, extraocular muscle paresis, or generalized muscle weakness. The explanation for this clinical observation is unknown, although Dr. Walker suggested that a "curarizing substance" was released by the muscle and produced the weakness.

Three different pharmacological tests are of diagnostic value. The most common of these is the intravenous edrophonium or Tensilon test. Edrophonium is an inhibitor of the enzyme acetylcholinesterase at the neuromuscular junction. In normal neuromuscular transmission, acetylcholine is released from the nerve terminal and depolarizes the muscle. The enzyme acetylcholinesterase then hydrolyzes the acetylcholine and prevents further depolarization. The inhibition of acetylcholinesterase increases the amount of acetylcholine available for neuromuscular transmission.

Because one of the suspected lesions in myasthenia gravis is a deficient amount of acetylcholine released presynaptically, the inhibition of acetylcholinesterase allows for increased neuromuscular transmission and subsequent improvement of the myasthenic weakness.

In performing the Tensilon test, my own personal bias is the double blind study. Have the nurse draw up two syringes. In one, she puts 1 cc of saline and in the other she puts 1 cc (10 mg) of edrophonium. The syringes are labelled A and B with only the nurse knowing which contains the active substance. Either of these two syringes is then injected. Initially, 0.2 cc is given, followed in two minutes by 0.3 cc, followed in two minutes by the final 0.5 cc. Between injections, the patient is observed for evidence of either improvement or deterioration of muscle strength. The second syringe is subsequently injected in the same manner, and the clinician decides in his own mind whether or not either syringe produced any improvement in muscle function. The code is then broken and the results observed are correlated with the substance injected. I must caution you about three things in doing this test. First, be sure resuscitative equipment is at the bedside when the test is done. Rarely, a patient is extremely sensitive to the depolarizing effects of excess acetylcholine, and respiratory arrest may occur. Secondly, be sure before the test is done that an objective sign is decided upon to be used in evaluating the test results. For example, if an ocular muscle paresis is present, an improvement in ocular motility makes a good end point. Finally, some patients with weakness other than myasthenia gravis can improve with edrophonium. Specifically, patients with motor neuron disease and occasionally with polymyositis may show moderate increased strength with edrophonium.

The second pharmacologic agent used is neostigmine. Neostigmine is also a cholinesterase inhibitor and is given intramuscularly in a dose of 1.5 milligrams. Some myasthenics will respond to neostigmine when they show no response to edrophonium.

The final pharmacologic test is one which takes advantage of the fact that myasthenic patients are unusually sensitive to drugs which ordinarily block the neuromuscular junction. The drug used is d-tubocurarine, the active ingredient of

the poison used by South American Indians, curare. A dose of this drug which would not cause any weakness in the normal person may cause profound weakness in the myasthenic patient. This dangerous test should probably be done only at medical centers such as Vanderbilt and resuscitative equipment must be present.

Electromyography is a sensitive diagnostic test in myasthenia gravis. Briefly, in a normal patient electrical stimulation of the nerve at frequencies of 2 to 5 per second, produce no change in the height of the evoked muscle action potential. In a patient with myasthenia gravis, a fall is usually seen in the height of this evoked response at the 4th or 5th stimulus. Not all muscles are equally sensitive, and usually several muscles must be studied before deciding a test is negative. Surprisingly, electromyographic examination in today's patient was normal. Perhaps this was due to the drugs the patient was taking prior to the study.

Before talking about treatment, I think I should briefly describe some aspects of the pathophysiology of myasthenia gravis that will help us understand methods of therapy.* In myasthenia gravis, there appears to be a decreased amount of acetylcholine released from the nerve terminal.³ In addition, the end plate region on the muscle side of the neuromuscular junction shows a simplification of the post-synaptic region⁴ but this may represent a change due to prolonged cholinesterase inhibition more than a primary defect.⁵ Along with the morphologic changes at the end plate, an 80 percent reduction in the number of cholinergic receptors has recently been described.⁶ These changes all point to a defect in neuromuscular transmission, but do not tell us why the defect exists.

A relationship between the thymus gland and myasthenia gravis has been recognized for some time. In 1936, Dr. Blalock here at Vanderbilt performed the first modern thymectomy in a patient with myasthenia gravis and noted improvement in her symptoms of myasthenia over a period of time. Incidentally, this patient is still alive and doing well. Since then, the following observations have been made:

1. A large number of patients with myasthenia gravis have hyperplastic thymus glands with about 10 percent of the patients having thymoma.⁷
2. A greater incidence of lupus erythematosus, hyperthyroidism, rheumatoid arthritis and

*Note: This section has been shortened since Dr. Henry B. Stokes of this department has reviewed this area in the May issue of this JOURNAL.²

other presumed autoimmune disorders occurs associated with myasthenia than would be expected. Today's patient exemplifies this association.

3. The thymus gland contains myoepithelial cells which have a cross reacting antigen with muscle cells.
4. Circulating antibodies against striated muscle have been demonstrated in patients with myasthenia gravis.

These observations have suggested that myasthenia gravis may be a form of autoimmune disease, with the thymus playing a role in the pathogenesis of the disorder.

The treatment of myasthenia gravis currently involves a variety of therapeutic modalities. Patients who have very mild myasthenia may do well with the use of pyridostigmine (Mestinon) 60 mg three or four times a day or neostigmine 15 mg three or four times a day. In patients with more severe myasthenia, it is my own feeling that a thymectomy should be performed when the diagnosis is made. In a large series of patients treated with thymectomy, approximately 35 percent achieved complete remission, with about another 35 percent improved.⁷ The improvement following thymectomy may be slow with no improvement seen for several years. ACTH therapy has been used in the treatment of severe myasthenia since the 1950s. The patients almost always become markedly worse after 4 or 5 days of ACTH therapy and sometimes require tracheostomy. After one to two weeks, however, an improvement usually occurs with resulting remission lasting up to several months. Drs. Cape and Utterback in Memphis have recently used intermittent intramuscular ACTH as a form of maintaining patients in remission.⁸ The use of alternate day oral prednisone therapy was reported by Warmolts and Engel in 1972.⁹ Patients were given 100 mg of prednisone as a single dose on alternate days. Using this drug treatment, along with supplemental potassium and antacids, a striking improvement was achieved in a small number of patients. Other authors have also reported similar encouraging results with alternate day prednisone therapy.

DR. FREEMON: Please summarize for us your own approach to treatment.

DR. ROELOFS: In those myasthenics with mild disease involving only the ocular muscles, I restrict treatment to anticholinesterase medications only. In more severely involved cases (Osserman's groups II through IV), I recommend

immediate thymectomy. Of course in all cases, regardless of severity, I obtain chest films with lateral views and laminograms of the posterior mediastinum looking for a thymoma. In patients without tumor who undergo thymectomy, improvement definitely occurs but is usually quite slow. I therefore follow thymectomy with alternate day prednisone therapy, high doses for a period of 3 to 9 months, depending upon response, then a gradual tapering of dosage over a period of another 9 months or so. Anticholinesterase medications can be utilized symptomatically but one must be careful with combined therapy since steroids increase neuromuscular transmission and an unchanged dose of anticholinesterase drugs may produce a cholinergic crisis.

DR. CHARLOTTE McCUTCHEN: Is it true that patients with thymoma and myasthenia do not respond as well to thymectomy as do those myasthenics without thymoma?

DR. ROELOFS: Patients with thymoma have a worse prognosis than those without, of course, but in general most myasthenics improve following thymectomy though improvement in some cases must take many months.

DR. HARRIS BONNETTE: How often does surgery fail to completely remove the thymus?

DR. ROELOFS: We don't know exactly. This may be an explanation for a portion of the approximately 30 percent of patients who do not respond to thymectomy.⁷ I have tried irradiation to the thymic area in patients whom I suspect may harbor residual thymus tissue.

DR. WILLIAM H. OLSON: Is it true that Dr. Freemon is recording this conference and it will be published in the JOURNAL OF THE TENNESSEE MEDICAL ASSOCIATION?

DR. ROELOFS: Yes, it is. Dr. Freemon really is a (characterization deleted).

DR. OLSON (Follow up note): Nine months following thymectomy this patient has had complete remission of all weakness save for occasional diplopia. She received 100 mg of prednisone every other day for 6 months but has been on decreasing steroid dosage since that time without recurrence of symptoms.

References

1. Walker, MB: Some discoveries on myasthenia gravis: The background. *Brit Med J*, 2:42-43, 1973.
2. Stokes, HB: Review of the functional neuromuscular transmission unit. *J Tenn Med Assoc*, 67:399-403, 1974.
3. Lambert, EH and Elmqvist, D: Quantal com-

(continued on page 921)

Alternative To "911"

BY WILLIAM J. HENRY, M.D.

Over the past several years the need for an entry into emergency medical systems throughout the United States has been well documented. In large metropolitan areas the "911" concept has been introduced. This consists of a telephone number which is answered at a central dispatch desk. People requiring emergency services, be it fire, police, ambulance or physician, need only to dial 911 on their telephone to connect with the central dispatcher. After explaining to the dispatcher their problem, he then calls the appropriate service to respond to the emergency at hand.

In rural areas it is not practical to have such a system with the current state of social and engineering developments. First of all, it is terribly expensive for small telephone companies to install a "911" system. Secondly, the same rural area is frequently serviced by more than one telephone company. Third, rural areas are not able to afford a full-time central dispatch office.

The Methow Valley in North Central Washington is such an isolated socio-geographic area. It is part of a hospital district serviced by three telephone companies. There is one medical center that operates an ambulance service. Fire responses are dependent upon volunteers and police are dispatched from a central dispatcher 35 miles away in another valley. In 1973 several situations arose in which people in the Valley and in the mountains surrounding the Valley were in need of emergency care and had no knowledge of how to gain entry into the emergency response system. At least one death occurred because all telephone lines into the one medical center in the Valley were busy at the time the woman was frantically trying to call for help for her husband who was in the agonal state of a terminal coronary.

After investigating the possibility of instituting the "911" system, we arrived at the conclusion that it was impractical. The major telephone company servicing this area estimated that it would cost between \$50,000 to \$60,000 to install the necessary equipment. The biggest drawback was the lack of a 24-hour central dispatcher. Funds were not available to pay for his equip-

ment or for a salary or for training.

As an alternative the telephone company agreed to establish a private number and help us advertise it as such. The number 7111 was chosen because of its compatibility with existing equipment. It was still necessary that the standard prefix for the area, 997, be dialed also. Five telephones were installed answering on this number, one at the medical center, one at the home of a physician, one in the home of a registered nurse who is trauma-trained and two in the homes of primary ambulance drivers. This phone was hooked to a different ringing system in order to differentiate it from standard telephone calls. In three of the homes the phones were connected to chimes which would immediately alert those who were standing by that an emergency call was coming in. At each phone a list of on-duty ambulance drivers, attendants, physicians, and nurses was posted along with the day that each individual person agreed to assume primary response duty. The phone also had listed near it the numbers of the fire and police since it was inevitable that people would eventually start using this number for all emergency services.

Paying for this was a problem. Installation charges were approximately \$150.00 and monthly service charges are about \$25.00. We approached the Chamber of Commerce in one of the communities who agreed to pay the service charges for six months. The local lumber mill agreed to pick up charges for the second six months and one of the banks agreed to pay the installation charges. This level of community involvement is a vitally important part of any such system and gives the community a sense of ownership in the emergency response capability.

This system has now been in operation for about two and a half months. Quite a bit still remains to be done in the line of publicizing this service. Newspapers carry periodic articles about it. Cards are posted in the telephone booths. A mimeographed slip has been sent to all the motels for the managers to staple to the inside cover of their telephone books. The Forest Service and the Sheriff Deputies all have been supplied with mimeographed slips containing the number. These are carried in the patrol cars. This system will continue to need further infusion of publicity to make it a fully operable system.

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Salt Loss and the Onset of Malignant Hypertension

Without treatment malignant hypertension ends in death. The characteristic vascular lesions occurring in the kidney, retina, central nervous system, and heart result in uremia, papilledema, cerebral hemorrhage or heart failure. On the basis of experiments in renal hypertensive rats, Wilson and Byrom suggested in 1941 that the kidney played a key role in the pathogenesis of malignant hypertension: hypertension causing vascular damage in the kidney (and in other organs), thereby impairing renal function, which in turn maintains or further increases blood pressure. Consistent with this concept is the well-documented fact that in most of the patients and animals suffering from malignant hypertension nephrectomy will promptly interrupt the malignant course of hypertension and nearly or completely normalize blood pressure.

Mechanism of malignant hypertension.

The mechanisms by which the kidney plays a key role in malignant hypertension are poorly understood. Therefore, no rational basis exists to date for the treatment of malignant hypertension, except that blood pressure must be lowered by the best available means. Recently, experiments on rats have been reported which might throw some light on the complex pathophysiological situation of malignant hypertension, and which might help us to understand what is seen in many patients who suffer from malignant hypertension.

In malignant hypertension the renin-angiotensin-aldosterone system is activated. Such an activation could be the consequence of sustained salt and water loss, which is known to activate the renin-angiotensin system. This hypothesis is substantiated by the fact that in malignant hypertension the activity of the renin-angiotensin system seems to be inappropriately high in relation to total body sodium, indicating that the system reacts excessively to salt and water depletion. Furthermore, the patient with malignant hypertension rarely responds to diuretics by the lowering of his blood pressure, while patients with benign

essential hypertension commonly do.

Such clinical observations might suggest that, at high blood pressure levels, a pressure-induced salt and water loss occurs, activating the renin-angiotensin system. This chronic renin elevation results in increased blood pressure levels, and the vicious circle of malignant hypertension ensues, finally resulting in severe vascular damage and death. Since no experimental data were available to support this hypothesis, we set out to evaluate salt and water balance in animals during the course of malignant hypertension due to unilateral renal artery stenosis.

Malignant hypertension was produced experimentally in rats by constricting one renal artery with a silver clip. A malignant course of hypertension was observed, which resembled in many respects that observed in man. When the blood pressure surpassed a "critical" level (about 180 to 190 mm Hg as opposed to 105 mm Hg in controls), a sudden salt and water loss ensued in most of the rats, which markedly stimulated the renin-angiotensin-aldosterone system. Malignant nephrosclerosis occurred in the contralateral kidney and renal function deteriorated. The animals lost considerable weight and some of them died.

These observations were consistent with the hypothesis that salt and water loss, occurring when blood pressure surpasses a "critical" level, would activate the renin-angiotensin system. This would maintain and indeed increase blood pressure levels, thereby triggering and maintaining the vicious circle of malignant hypertension.

Effect of salt supplement on the malignant course of renal hypertension in rats.

This hypothesis was further tested by giving the rats, which suffered from malignant renal hypertension, free choice to either water or 0.9% saline as drinking fluids. The malignant hypertensive animals compulsively drank large amounts of saline while rats which exhibited a benign course of hypertension did not. Despite this increased salt intake their blood pressure fell (although only transiently). Plasma concentrations of renin, angiotensin II and urea, and plasma volume normalized and remained normal. The general condition of the animals improved visibly and

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none of them died. After several days on the high salt regimen, blood pressure again reached pre-treatment levels, but with the high salt intake the animals did not develop malignant hypertension. If saline was withdrawn at that stage of the experiment, signs of malignant hypertension reappeared within 24 to 48 hours. These observations were extended over a period of 2 to 3 weeks, and they were consistent with the hypothesis that, at a "critical" high blood pressure level, it was the salt and water loss which initiated the vicious circle of malignant hypertension.

Preliminary conclusions from animal experiments.

These experimental observations might be important for the understanding of the pathogenesis of malignant hypertension in man, and for its treatment. In patients in whom signs of salt and water loss and an activated renin-angiotensin system are found, additional salt loss due to treatment with diuretics could aggravate the course of hypertension by further stimulating the renin-angiotensin system. Therefore, diuretics should be used, if at all, with great caution. Furthermore, plasma concentrations of sodium, urea and creatinine should be controlled repeatedly in order to detect deterioration of renal function, and plasma renin or angiotensin II concentrations should be taken as a guiding parameter. Obviously, it is too early to draw definite conclusions from the animal experiments. Nonetheless, clinicians who treat patients suffering from malignant hypertension should consider (1) carefully controlling salt and water balance and renal function and (2) the use of drugs which are known to suppress rather than increase the activity of the

renin-angiotensin system, such as beta-blockers. In the true hypertensive emergency, blood pressure must be lowered as rapidly as possible, with such agents as pentolinium, diazoxide or sodium nitroprusside. After blood pressure has been lowered from critical levels, hypertensive therapy may be continued with conventional anti-hypertensive agents. Recently we have used this approach with success in patients who suffer from malignant hypertension.

JAN MOEHRING, M.D.

References

1. Ahearn, DJ, and Grim, CE: Treatment of malignant hypertension with sodium nitroprusside. *Arch Int Med*, 133:187, 1974.
2. Barraclough, MA: Sodium and water depletion with acute malignant hypertension. *Amer J Med*, 40: 265, 1966.
3. Davies, DL, et al: Abnormal relation between exchangeable sodium and the renin-angiotensin system in malignant hypertension and in hypertension with chronic renal failure. *The Lancet*, 1:683, 1973.
4. Kincaid-Smith, P, et al: The clinical course and pathology of hypertension with papilloedema (malignant hypertension). *Quarterly J Med*, 27:683, 1958.
5. Laragh, J, et al: Renin, Angiotensin and aldosterone system in pathogenesis and management of hypertensive vascular crisis. *Amer J Med*, 52:633, 1972.
6. Möehring, J, et al: Beneficial effect of salt in malignant hypertension of rats. Abstract no. 71, 8th Annual Meeting of the European Society for Clinical Investigation, Rotterdam, 1974.
7. Möehring, J, et al: Thirst and salt appetite in experimental renal hypertension of rats. In: Control Mechanisms of Drinking. Proceedings of an International Symposium on Thirst, ed. by G. Peters and J. Fitzimons, Springer-Verlag, Heidelberg and New York, 1974, in press.

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Staff Conference

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ponents of end plate potentials in the myasthenic syndrome. *Ann NY Acad Sci*, 183:183-199, 1971.

4. Santa, T, Engel, AG, and Lambert, EH: Histo-metric study of neuromuscular junction ultrastructure I: Myasthenia gravis. *Neurology*, 22:71-82, 1972.

5. Engel, AG, Lambert, EH, and Santa, T: Studies of long term anticholinesterase therapy: Effects on neuromuscular transmission and on motor end plate fine structure. *Neurology*, 23:1273-1281, 1973.

6. Fambrough, DM, Drachman, DB, and Satyamurti, S: Neuromuscular junction in myasthenia gravis: Decreased acetylcholine receptors. *Science*, 182:293-295, 1973.

7. Perlo, VP, Arnason, B, and Poskanzer, D, et al: The role of thymectomy in the treatment of myasthenia gravis. *Ann NY Acad Sci*, 183:308-315, 1971.

8. Cape, CA and Utterback, RA: Maintenance adrenocorticotrophic hormone (ACTH) treatment in myasthenia gravis. *Neurology*, 22:1160-1164, 1972.

9. Warmolts, JR and Engel, WK: Benefit from alternate-day prednisone in myasthenia gravis. *New Eng J Med*, 286:17-20, 1972.

Nuclear Cardiology

Part 3. The Use of Intravascular Tracers for Evaluation of Cardiac Disease

Reports of investigative studies of cardiac structure and function after the administration of radiopharmaceuticals that are primarily confined to the vascular space during the time of study have steadily increased in number and have clearly moved from the research laboratory to the clinical arena. Although most of the information derived by the use of such techniques can be obtained with cardiac catheterization, the fact that these studies can be performed more easily, with less danger, less trauma, less radiation, and less expense to the patient than the cardiac catheterization studies, as well as the fact that they can be performed under more physiologic conditions, accounts for their steady growth.

The use of isotopically labelled albumin to determine cardiac output was first employed by Shipley, et al, in 1953.¹ Subsequent refinement of his basic methodology by many workers has led to a method that agrees within 5 per cent with the traditional Fick method for determining cardiac output. Not only is it as accurate as the dye dilution methods, but also it does not require arterial puncture or catheterization. With the advent of Technetium^{99m} labelled albumin and the Anger camera, it became possible with one intravenous injection to obtain a cardiac output, to visualize the transit of isotope through the heart and lung, and to measure circulation time through different parts of the heart and lung. In order to accomplish this, a blood volume must be determined with the labelled albumin, and the cardiac output may then be evaluated from the time activity curves generated over the heart and lungs.² With this information and with a measurement of the circulation time through the lungs, one can then derive pulmonary blood volume as well. While the appearance time of isotope in the cardiac chambers and even the approximate peak transit time can be visually appreciated on half-second film exposures during the passage of isotope through the heart and lungs, an accurate peak transit time and mean transit time through

various chambers can be determined only by the use of a videotape system or computer system.³ (Fig. 1)

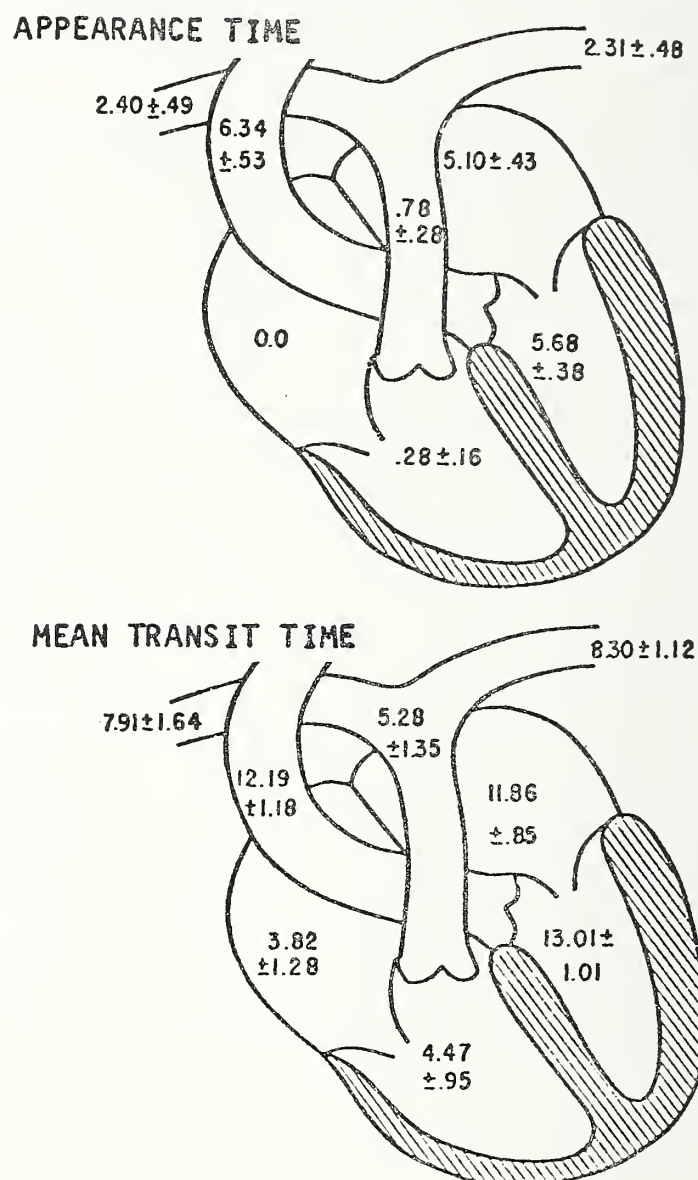


FIG. 1

Scintiphotographic studies of acquired and congenital heart disease following an intravenous injection of Technetium^{99m} has been reported by Hayden and Kriss.⁴ The technique requires a videotape play-back system with a capability for variable time exposure recordings and a capability for double exposures of different segments of time. This rapid simple technique permits physiologic assessment of a wide variety of cardiovascular lesions and lends itself to repeated measurements. One would anticipate that the qualitative assessment of these scintiphotos soon

From the Department of Nuclear Medicine, Park View Hospital, Nashville, Tenn. 37203.

will be quantitatively evaluated with computer assistance.

Left-to-right and right-to-left shunts can be evaluated with sequential intravenous injections of Xenon¹³³ dissolved in saline and Technetium^{99m}.⁵ Following these injections, time activity

curves over the right heart chambers and left heart chambers may demonstrate characteristic patterns. (Fig. 2) The sensitivity of the method and the accuracy of this method are well documented.

All of these techniques for evaluating cardiovascular disease following an intravenous injection of a radiopharmaceutical, holds great promise in that they are more physiologic than cardiac catheterization studies and dye injections, are safer, quicker and easier to perform, and are less expensive. In order to utilize this exciting new methodology, a flexible videotape system, a television videoscope, and a small computer are necessary (and expensive) equipment.

ROBERT L. BELL, M.D., *Director*

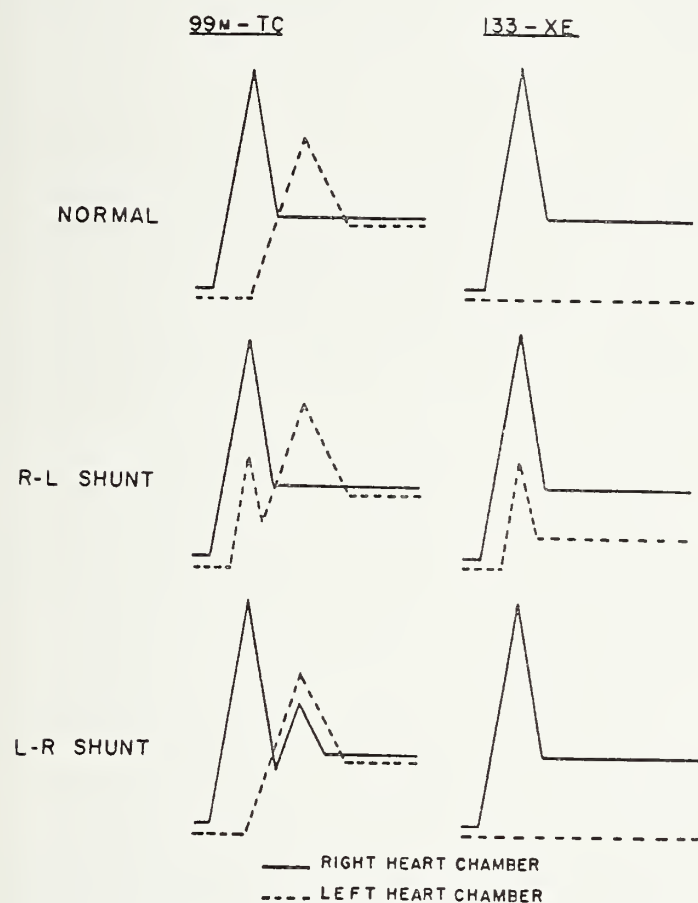


FIG. 2

References

1. Shipley, RA, and Clark, RE, et al: Analysis of Radiocardiogram in Heart Failure. *Arch Res*, 1:428-438, 1953.
2. Donato, L: Basic Concepts of Radiocardiography. *Seminars Nucl Med*, Vol 3, April, 1973.
3. Jones, RH, et al: Quantitative Radionuclide Angiocardiology for Determination of Chamber to Chamber Cardiac Transit Times. *Amer J Card*, 30, 855, 1972.
4. Hayden, WG, and Kriss, JP: Scintiphotographic Studies of Acquired Cardiovascular Disease. *Seminars Nucl Med*, Vol. 2, 177, April, 1973.
5. Bosnjakovul, V, et al: Dual Isotope Method for Diagnosis of Intracardiac Shunts. *J Nucl Med*, 14:515, 1973.

* * *

Executive Health

It isn't absolutely necessary for executives to have heart disease, ulcers and stroke, ailments commonly associated with American businessmen who reach the management level.

Further, these ailments are by no means limited to executives. They can affect almost anyone—even doctors.

- * Watch your weight. Strenuous diets usually aren't necessary. Just eat less.
- * Exercise. Golf is fine, if you enjoy it. But if you're one of the many who lose their tempers and get upset over every missed stroke, brisk walks will serve just as well as golf, perhaps better.
- * Take vacations. Real vacations, not just an occasional day or two. And plan your vacation so there will be time to relax and unwind.
- * Smoke less. Better still, quit smoking altogether, if you can. There is no doubt whatsoever that smoking is not good for you.
- * Cut down on drinking. Two cocktails before dinner may be one too many. One might be too many for some people.
- * Get plenty of sleep. And try to sleep without the use of drugs, if at all possible.
- * Put business worries out of your mind when you leave the office. This sometimes is easier said than done. Perhaps you will need to get active in something else, such as the affairs of your church, to get your mind off your job.

AMA Health Tip—



from the regional medical programs

On September 1, supplemental grants totaling \$626,313 were made by the Tennessee Mid-South Medical Program. These projects are in addition to the activities funded on July 1, 1974 which were described in the August 1974 edition of this JOURNAL.

Dr. Richard O. Cannon, Program Director, announced that the following projects were approved for funding by the Regional Advisory Group. The activity period is from September 1, 1974 through June 30, 1975:

COORDINATED MANPOWER DEVELOPMENT PROGRAM—Tennessee Health Careers, Nashville.

This pilot project will develop a mechanism to coordinate available jobs in the allied health field with the production of manpower through the use of a computer and the services of a personnel counsellor. \$46,078.

BLACK LUNG HEALTH CENTER, INC.—Jacksboro.

This clinic, staffed by a Nurse Clinician, will strive to improve the level of health care available to miners who are often the victims of Black Lung disease. \$21,177.

REDISTRIBUTION TO IMPROVE REGIONAL BLOOD SUPPLY—Nashville Regional Red Cross Blood Center.

Funds have been provided to purchase a vehicle which will be used to redistribute available blood supplies in remote areas to prevent outdating before the blood can be utilized. \$10,545.

TENNESSEE HEALTH PROFESSIONS EDUCATION STUDY—Tennessee Higher Education Commission, Nashville.

This study will determine the educational programming which will be required to meet the future health needs of Tennessee. \$23,114.

GRUNDY & MARION COUNTY PRIMARY CARE PROJECT—Tennessee Dept. of Public Health, Tracy City and Jasper.

Primary care clinics, each staffed by a family-oriented Nurse Clinician, will be established under the auspices of the health department in Tracy City and Jasper. \$87,593.

TEMP-UPPER EAST TENNESSEE REGIONAL OFFICE—Tennessee Effective Management Program, Tennessee Hospital Association, Kingsport.

A TEMP Office will be established in Kingsport. This program offers shared management engineering services related to improving the quality of service and containing the cost of operation in Tennessee hospitals. \$10,799.

NURSE MID-WIFERY TRAINING PROGRAM—Tennessee Department of Public Health, Chattanooga.

Two qualified nurses will attend the University of Mississippi for training in midwifery and will then

return to Dyersburg and McMinnville to work through the Maternal and Infant Care Program of the Tennessee Department of Public Health. \$29,873.

PEOPLE'S HEALTH CENTER—People's Health Council, Inc., Briceville.

Funds have been allocated to support additional staff and to purchase equipment for this clinic which has been functioning successfully since 1970. \$18,626.

MEDICAL RECORD CONSULTANT FOR SOUTHEAST TENNESSEE—Southeast Tennessee Area Health Education Center, Chattanooga.

Two Medical Record Administrators will provide workshops and on-the-job training for medical record personnel in rural hospitals in the Southeast Tennessee Area. \$19,276.

HOME NURSING REFERRAL PROGRAM—Tennessee Department of Public Health, Johnson City.

The program will facilitate the referral of needy patients to Home Nursing Services so that the length of hospitalization can be reduced. \$29,873.

RURAL TRANSPORTATION SERVICE—Progress for People, Inc., Cleveland.

Two twelve-passenger vans will provide transportation to health care services for low income and/or elderly people in 10 rural counties of Southeast Tennessee. \$31,238.

PRECEPTORSHIP EXPERIENCES FOR PRIMARY CARE PHYSICIAN ASSISTANTS IN SOUTHEAST TENNESSEE—Southeast Area Health Education Center, Chattanooga.

In an effort to recruit Physician Assistants to serve in this area, arrangements have been made for ten Physician Assistant students to serve the preceptorship portion of their training program in Southeast Tennessee. \$33,850.

SERVICES THE ELDERLY NEED DIRECTLY (SEND)—Elizabethton Senior Citizens Center.

Aides, low-income elderly people themselves, will be trained and supervised by R.N.'s to administer home health services in order to enable aged, chronically ill people in rural areas to remain in their own homes while receiving the necessary care. \$66,879.

REGIONAL ARTHRITIS CENTER WITH SUB-REGIONAL CENTERS—Appalachian Regional Arthritis Foundation, Chattanooga.

A regional arthritis center will be opened under the auspices of Baroness Erlanger Hospital and the University of Tennessee Clinical Education Center in Chattanooga. It will provide comprehensive care for arthritis victims and will serve as a base for patient and professional education. Satellite clinics in outlying areas will be administered by local physicians. \$33,566.

A TOTAL CARE PROGRAM IN ARTHRITIS IN MIDDLE TENNESSEE—Vanderbilt Medical Center, Nashville.

(continued on page 927)

History

This 45-year-old white woman died of ventricular fibrillation during hospitalization for progressive dyspnea and ischemic disease of her lower extremities. She had taken high dose steroids for 14 years for alleged recurrent rheumatic fever and had recently undergone gas-

trectomy for gastrointestinal bleeding. No cardiac abnormalities had been described on repeated physical examinations and she had not been hypertensive.

Her heart size was described as upper limits of normal on chest x-ray and a representative electrocardiogram (ECG) is illustrated in Figure 1. She had described no chest pain and although progressive dyspnea on exertion had been noted, her final hospitalization was related to painful ischemic ulcerations of the lower extremities. Occasional diuretics, but no specific cardiac drugs had been administered. Her death occurred suddenly and without warning.

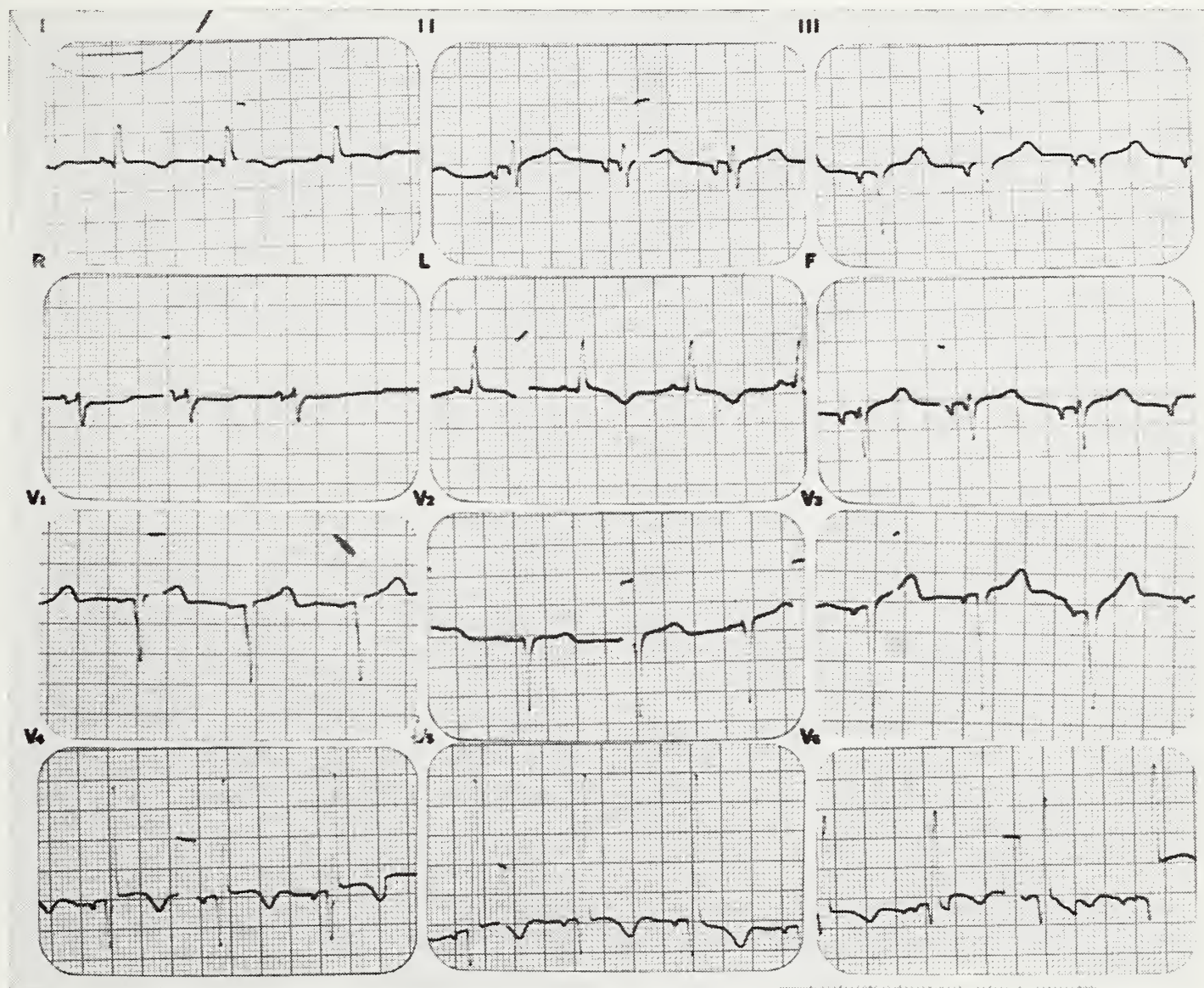


FIG. 1

Discussion

Since an autopsy was not performed, one can only speculate about the exact etiology of her heart disease. The ECG is highly suggestive that the underlying problem was a hypertrophic cardiomyopathy in the absence of another obvious etiology. The history of recurrent rheumatic fever is not documented. Glucose intolerance was noted during her final hospitalization. It is possi-

ble that her peripheral vascular disease was related to this finding and was perhaps aggravated by the chronic steroid therapy.

In the absence of obvious heart disease on physical or x-ray examination and in the absence of chest pain, the ECG must be considered quite remarkable. The deformed P waves, abnormal ventricular repolarization (ST-T changes) and wide Q waves V_1 - V_6 must be explained. Whether the unusual P waves represent an ectopic atrial

(continued on page 927)

From the Department of Cardiology, St. Thomas Hospital, Nashville, Tenn. 37203.

Laboratory Investigation of Polycythemia

Anemia is a common clinical problem, and most physicians have an established routine for its management. Although less common, "polycythemia" often produces perplexity in investigation. This communication is intended to provide a simplified guide to the laboratory investigation of patients with erythrocytosis (a semantically better term than polycythemia).

It is difficult to define exactly when a patient with erythrocytosis needs medical attention. In non-smokers, the physician might consider it a pathologic process when the hematocrit passes 50%. Certainly a hematocrit of 55% needs attention as blood viscosity increases rapidly above this level and complications of hyperviscosity become a threat. Heavy cigarette smokers may convert 15% of hemoglobin to carboxyhemoglobin which does not easily release oxygen; thus, smokers may have mild erythrocytosis on this basis. The purpose of investigating erythrocytosis is to determine its etiology so that appropriate therapy can be undertaken. The table given below is a simplified classification of the erythrocytoses as related to etiology, and the tests suggested should allow the patient to be properly categorized. As with all things medical, the most important items are a good history and physical examination directed especially toward detecting the lesions outline in the table.

The Erythrocytoses

- I. Due to Tissue Hypoxia
 - A. Cardiovascular-pulmonary disease
 - B. High altitudes
 - C. Abnormal hemoglobins, acquired (example—smokers) and congenital.
- II. Polycythemia vera—a myeloproliferative disorder, probably neoplastic in nature
- III. Due to Inappropriate Erythropoietin Production
 - A. Renal lesions
 - B. Hepatoma
 - C. Cerebral hemangioma
 - D. Adrenal tumors (adenomas and pheochromocytoma)
 - E. Uterine tumors
 - F. Androgen administration
 - G. Recessive, familial erythrocytosis
- IV. Relative or Stress Erythrocytosis

From the Department of Pathology, Methodist Hospital, Memphis, Tenn. 38104.

The routine blood count can give much information, as an increase in granulocytes and/or platelets plus erythrocytes strongly supports the diagnosis of polycythemia vera instead of a simple erythrocytosis. There may also be a "left-shift" with abnormal forms plus increased numbers of eosinophils and basophils in polycythemia vera. One of the first special laboratory tests performed should be a *total red cell volume*. This is best measured by ^{51}Cr -labeled red cells but may be inferred by determining plasma volume, usually with radioactive iodine-labeled albumin. If the elevated hematocrit is due to a *decrease* in plasma volume instead of an *increase* in red blood cell mass then a diagnosis of relative or stress erythrocytosis is usually made.

A next step might be determination of *arterial oxygen saturation*. If this is reduced below 92%, a diagnosis of erythrocytosis secondary to tissue hypoxia can be made and the cause sought. An *intravenous pyelogram* and a *liver scan* are useful examinations, as kidney lesions and hepatoma are sometimes the cause of erythrocytosis. These, as well as other tumors, are apparently the site of inappropriate erythropoietin production. Usually a liver scan can be combined with a *spleen scan* using the same radioactive material. This would be a useful addition as splenomegaly is an important finding which points strongly to vera.

Polycythemia vera often shows a non-specific increase in *leucocyte alkaline phosphatase*, *serum uric acid*, *serum LDH*, and *serum B₁₂* and *B₁₂-binding capacity*. The diagnostic certainty of a bone marrow examination is sometimes debated. Polycythemia vera is characterized by an increase in all the myeloid elements, with decreased iron stores, while other forms of erythrocytosis will show only an increase of red cell elements, although sometimes the distinction is not clear cut. On balance, a bone marrow examination is a relatively easy test, gives useful information, and deserves a place in investigation of erythrocytosis. Additional information is obtained if the routine bone marrow aspirate is combined with needle biopsy of bone. Also, a test for the Philadelphia chromosome could be done on the bone marrow. If present, this would mean a myeloproliferative

disorder. If the diagnosis is still uncertain, a search for abnormal hemoglobins is in order.

A *hemoglobin oxygen dissociation curve* is one good method for detecting some abnormal hemoglobins. *Erythropoietin assay* of blood or urine may rarely be needed. If erythropoietin levels are low, a diagnosis of polycythemia vera is supported. If levels are normal or increased, a search for inappropriate erythropoietin production, especially by tumors, is indicated.

From the RMP

(continued from page 924)

The arthritis activities available at Vanderbilt, Nashville V.A. Hospital and Nashville Metropolitan General Hospital will be coordinated under the aegis of a Nurse Clinical Specialist. She will help to plan and implement projected patient and practitioner educational programs and will serve as a member of the therapeutic team. \$39,455.

RESTORATION OF THE ARTHRITIC TO THE COMMUNITY—East Tennessee Children's Hospital, Knoxville.

The major goal of this arthritis center for children and adults will be to restore the patient with arthritis to

These guides should help to classify a patient with erythrocytosis, but it is always good to end on a practical note. If no tumors can be found and all else fails, watch the patient for a period of time. The serious myeloproliferative disorder, polycythemia vera, will show a continuing increase in hematocrit, whereas in most other diseases the hematocrit will tend to reach a plateau.

WILLIAM D. BURTON, M.D.

a point where he can function with maximum efficiency despite his disease. This will be accomplished by reconstruction of damaged parts as well as by modification of the patients' environment. \$35,463.

Dr. Cannon stated that the Tennessee Mid-South Regional Medical Program is currently administering 74 major projects and has the responsibility for total grant funds amounting to \$3,557,289. What the future of the program will be after June 30, 1975 is still uncertain, and will probably remain so until after the election since new legislation is not expected to be passed by Congress before that time.

EKG of the Month

(continued from page 925)

focus or interference with the usual sequence of atrial depolarization cannot be proved. Ventricular depolarization suggests previous anterior myocardial infarction but is also compatible with the asymmetric septal hypertrophy often seen with hypertrophic cardiomyopathies. Although the typical asymmetric septal hypertrophy (or "Idiopathic Hypertrophic Subaortic Stenosis") produces murmurs related to left ventricular outflow turbulence or mitral regurgitation, occasionally no murmurs can be documented. Sudden

death is a common complication of hypertrophic cardiomyopathies. In the complete absence of clinical events to suggest ischemic heart disease, and the lack of substantiating evidence for such anomalies as corrected transposition of the great vessels, her sudden death is most likely explained by an underlying hypertrophic cardiomyopathy.

Presumptive ECG and anatomic diagnosis: Hypertrophic cardiomyopathy with asymmetric septal hypertrophy.

HARRY L. PAGE, JR., M.D.
W. BARTON CAMPBELL, M.D.
Co-directors

Pulling Hair Tight with Pins And Curlers Can Cause Baldness

A warning to the ladies that certain types of hair-dos can cause bald spots is voiced in the current (November) issue of *Archives of Dermatology*.

The article reports on the case of a nurse in a Boston hospital who developed two small bald spots on her head. The bald spots appeared at the two points where she used bobby pins to hold her nurses's cap tightly or her head. When she quit using the pins in the same spots each day, the hair gradually reappeared.

Continuous traction, hard pulling on hair shafts leads to hair loss, the two doctors from Harvard Medical School report. If the traction, such as a tight bobby pin, is removed as soon as the baldness is discovered, the hair usually grows back. If traction is continued, the hair loss becomes permanent, say Boston M.D.'s Francis S. Renna and Irwin M. Freedberg.

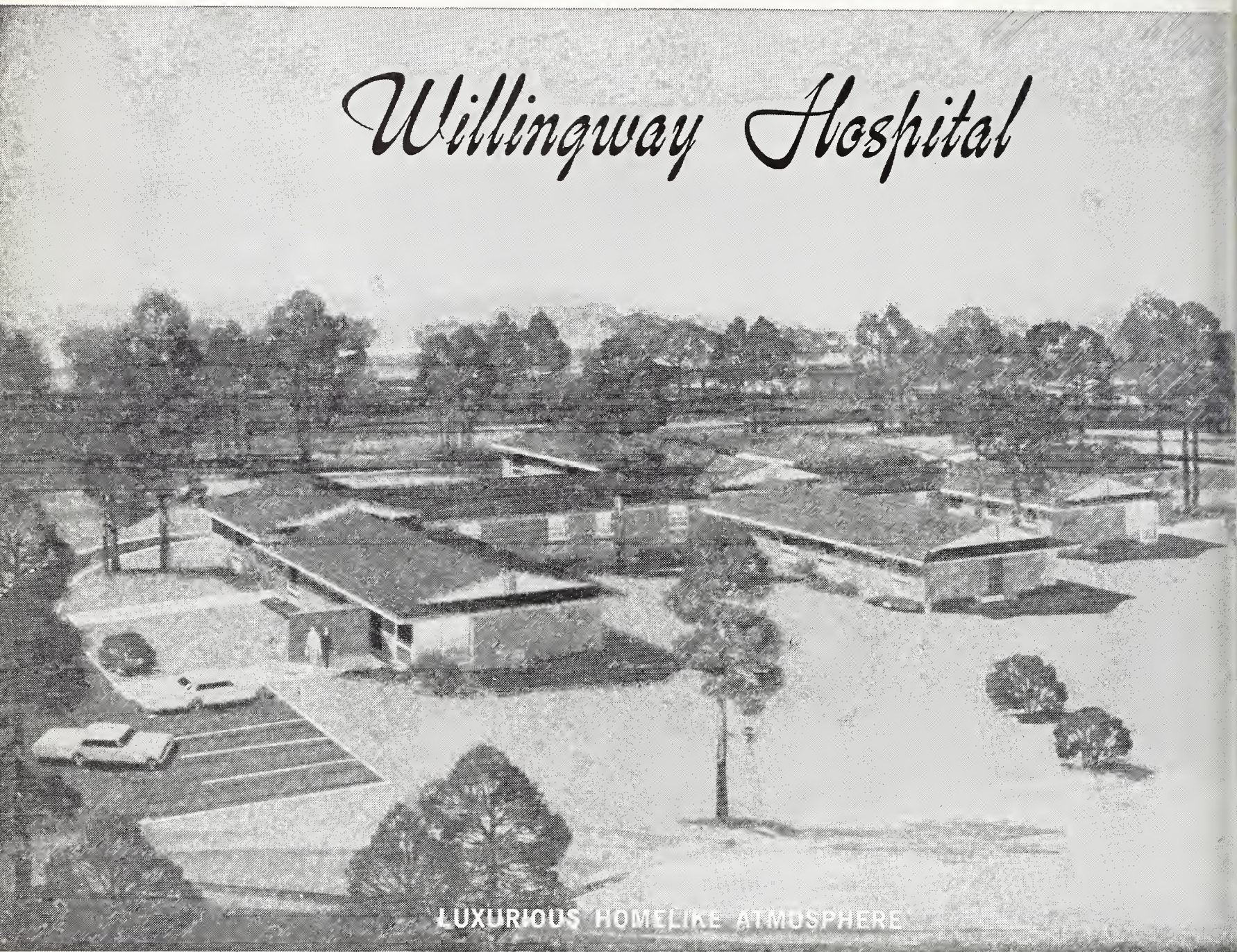
The condition is known to doctors as traction alopecia. It was first reported among women in Greenland affecting a particular type of coiffure. The traditional Japanese hairdo also is sometimes blamed for bald spots. In Europe, doctors noted that women who pull their hair back into a tight bun sometimes begin going bald at the front of the head. Pony tail hairdos sometimes are at fault and curlers rolled too tight can cause hair loss.

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Renal Pelvic Filling Defect

A 66-year-old white male was admitted to the hospital for painless gross hematuria.

He gave a history of recurrent hematuria over 2 to 3 years and claimed to have passed a number of stones as well. During an earlier admission to this hospital 2 years previously he had been found to have a filling defect in an upper pole calyx of the left kidney. He had refused an operation at that time.

An IVP performed on this admission showed a 3½ cm filling defect in the upper pole calyx of the left kidney. (Fig. 1) This was confirmed by a left retrograde pyeloureterogram. (Fig. 2) Cystoscopy demonstrated 2 bladder papillomas which were resected and pathologically shown to represent chronic cystitis with no evidence of tumor. Urines for cytology and AFB were negative.

A total left nephroureterectomy including a cuff of bladder was performed and well tolerated. The pathological diagnosis was well differentiated transitional cell

carcinoma of the renal pelvis measuring 4 x 4 x 3 cm and filling the collecting system of the upper pole.

Diagnosis:

Transitional cell carcinoma.

Discussion:

Differential diagnosis of a negative defect in a calyx or renal pelvis includes the following:

A. Non-pathological causes:

1. Incomplete filling of the renal pelvis
2. Air introduced at retrograde pyelography
3. Normal variants such as bifid and trifid pelves
4. Overlap of major or minor pelves
5. Calyces viewed on end
6. Overlying intestinal gas
7. Overlying renal vessels
8. Excessive accumulation of fat in the renal pelvis (renal sinus lipomatosis)
9. Ectopic renal papilla

B. Pathological conditions include:

1. Calculi, both completely radiolucent and slightly opaque;
2. Infection such as ureteritis, and pyelitis cystica, leukoplakia, and fungus balls²



FIG. 1

IVP. There is a large irregular filling defect distorting left upper pole calyces and causing some caliectasis.



FIG. 2

Left Retrograde pyeloureterogram. The upper pole defect is again seen. The remainder of pelvocalyceal system and ureter are normal.

From the Departments of Radiology, Vanderbilt University Hospital and the Veterans Administration Hospital, Nashville, Tenn. 37232.

3. Papillary necrosis
4. Blood clot secondary to trauma, bleeding diathesis, or neoplasm
5. Cysts
6. Neoplasm, both benign and malignant

Primary carcinomas of the renal pelvis represent about 12 percent of all renal malignancies and are divided into transitional cell, 82 percent squamous cell, 17 percent, and adenocarcinoma one percent. Sarcomas of the renal pelvis represent 0.3 percent.³ 80 to 85 percent of all epithelial tumors are papillary.⁹ Only 40 percent of papillary tumors are infiltrative, as opposed to almost 100 percent of the nonpapillary tumors. Whereas nonpapillary tumors are almost always single, 40 percent of papillary tumors are multiple.⁹ Thus in a patient presenting with a papillary tumor of the bladder, ureter or renal pelvis, it is imperative that the entire urinary tract be visualized. Bilateral occurrence is reported in 1½ percent of transitional cell tumors,³ and there is a single report of bilaterally occurring squamous cell carcinoma.¹⁰

The peak age incidence of primary carcinoma of the renal pelvis is in the 5th and 6th decades. Transitional cell carcinoma occurs 4 times as frequently in males as in females.^{3,9} Squamous and adenocarcinomas have been reported with equal sex frequency^{9,3} or predominance in females.⁵ The latter tumors also have a high association with chronic infection, leukoplakia and calculi.^{3,5}

Clinically, most patients present with either gross or microscopic hematuria, often silent. They may present with abdominal mass, flank pain, passage of stones, urinary tract infection, anemia and weight loss.

Diagnostic investigations often start with an IVP. The most commonly seen abnormality is a filling defect in the renal pelvis. This is often irregular, mottled and occasionally contains calcifications. Partial obstruction may result in dilatation of a single calyx, a group of calyces or the entire ipsilateral upper collecting system, depending on the site of tumor involvement. Non-visualization of any of the above structures may

occur if the obstruction is complete.^{8,4} Cystoscopy and retrograde pyelography complement these findings.⁴ Arteriography may be normal or may demonstrate hypertrophy of the pelvic artery, a fine network of tumor vascularity and a tumor blush in the capillary phase.^{4,8} Cytology, especially with the recently described technique of retrograde ureteral brushing^{6,7} may further increase the incidence of positive preoperative diagnosis.

Treatment of papillary transitional cell carcinoma requires complete nephroureterectomy with removal of an adequate cuff of bladder,³ as recurrences are otherwise relatively frequent and each recurrence tends to be of a slightly higher grade of malignancy. Periodic urologic examinations must be performed for the remainder of the patient's life.

JOSE ZANBILOWICZ, M.D.

YING T. LEE, M.D.

GUIA P. NORTELL, M.D.

References

1. Brown, RC, Jones, MC Jr, et al, Lesions Causing Radiolucent Defects in the Renal Pelvis. *AJR* 119:770-778, Dec. 1973.
2. Gerle, RD, Roentgenographic Features of Primary Renal Candidiasis. *AJR* 119:731-738, Dec. 1973.
3. Latham, HS, and Kay, S, Malignant Tumors of the Renal Pelvis. *Surgery, Gynecology, and Obstetrics* 138:613-622, April 1974.
4. Haleem, A, Sprayregen, S and Seigelman, SS, *Journal of Urology* 108:695-697, Nov. 1972.
5. Wagle, DC, Moore, RH, and Murphy, GP, Squamous Cell Carcinoma of the Renal Pelvis. *The Journal of Urology* 111:453-455, April 1974.
6. Bibbo, M, Gill, WB, Ureteral, Renal Pelvic and Renal Calyceal Lesions. A Preliminary Report. *Acta Cytologica* 18:137-141, March-April 1974.
7. Brown, RC, Hawtrey, CE, and Pixley, EE, Brush Biopsy of the Renal Pelvis, *AJR* 119:779-782, Dec. 1973.
8. Brunner, S. Angiographic and Conventional Radiographic Examination of Pelvic Carcinoma. *Scand J Urol Nephrol*, 6, Suppl. 15:97-104, 1972.
9. Emmitt, JL and Witten, DM, *Clinical Urography*, W. B. Saunders Company, Philadelphia, Penn. 1152-1155, 1971.
10. Thompson, IM, Schneider, J, and Kavan, LC, Bilateral Squamous Cell Carcinoma of the Kidneys. *J Urol*, 79:807, 1958.

THE COOPER REVIEW

(Answers found on page 954)

1. What is the mechanism of the syncope associated with effort in patients with severe aortic stenosis?
2. The most common cause of an elevated serum calcium in hospitalized patients is hyperparathyroidism. TRUE or FALSE
3. A 57-year-old male presents to your office with the chief complaint of pain and weakness in several portions of his arms and legs. He states that he has lost approximately 18 pounds in weight and has anorexia and abdominal discomfort.

On examination, you note that he is unable to raise his arms over his head to remove his shirt, and also has difficulty in rising from a sitting position. He has a fine edematous rash over his face and hands. You suspect dermatomyositis. Following course of action should be instituted:

- a) Give patient a short course of Phenylbutzone—100 mg qid. requesting that he return in one week to determine his response.
- b) Order muscle enzyme studies + EMG and then start him on a course of Prednisone—20 mg per/day for 10 days.
- c) Start him on 60 mg of Prednisone which should be continued for 6 months.
- d) Admit to hospital to be followed by a management program.

"The Cooper Review" is published by the Department of Medical Education, The Cooper Hospital, Camden, New Jersey, Sherman Garrison, M.D., Director. Produced by the Medical Staff of The Cooper Hospital, "The Cooper Review" is a review of clinical observations and contemporary problems encountered by the staff.

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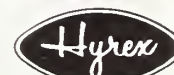
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**from the
executive
director**

J. E. BALLENTINE

MEDICAL DIGEST

NEWS OF INTEREST TO DOCTORS IN TENNESSEE

OFFICERS AND DELEGATES SHOULD BE SELECTED NOW BY COUNTY SOCIETIES . . .

County medical society officers have recently received information and official forms for use in following requirements in the TMA By-Laws to elect county Officers, and Delegates for the TMA House of Delegates, and been requested to report those elected to the Tennessee Medical Association by January 1, 1975 . . . It is urgently requested that the county societies conduct their elections before the end of December . . . The names of Delegates to the House are needed so that the Nominating Committee can be appointed by the Board of Trustees. The names of Committee members can then be made known to the county medical societies for contacting Nominating Committee appointees.

* * *

DOCTOR TESTIMONY LAW CHALLENGED . . . A law allowing Doctors of Medicine to give a deposition instead of personally testifying in civil cases is being challenged in Chancery Court in Davidson County . . . A Nashville attorney filed suit seeking to invalidate the law, claiming representation of accident victims is materially hampered by the statute. The suit is against the Nashville Academy of Medicine and the Attorney General . . . While this is a suit against a county medical society, such action would affect physicians through the state, in the event that this lawsuit is won.

* * *

TMA AT WORK . . . September and October were busy months for TMA. The Committee on Medical Licensure met at the end of August; the Board of Trustees held the regular quarterly meeting on October 6; and the TMA Judicial Council held its quarterly meeting October 27 . . . The annual Rural Health Conference, sponsored by the TMA Rural Health Committee, presented the annual Conference in Columbia on October 2 . . . The Continuing Education Committee met October 13 . . . and the Hospital Committee met on October 17.

* * *

RECORD TOTAL FOR MEDICAL STUDENTS . . . According to the AMA Newsletter, 14,436 first-year medical students, a record total, are expected to enroll in the Nation's 114 medical schools this fall. The AMA Department of Undergraduate and Medical Education estimates that the total medical school enrollment will be 53,735. Although no new medical schools admitted students for the first time this year, the expansion of the existing schools accounts for the slight increase over last year's figures of 14,182 first-year medical students, and a 50,912 total.

* * *

SENATE ADOPTS COMPROMISE MANPOWER BILL . . . By a vote of 81 to 7, the Senate has adopted a three-year, \$2 billion extension of Federal aid to medical education. The bill as passed is a compromise measure by Senator Beal of Maryland, and it was adopted after the Senate specifically rejected the original bill, S. 3585, sponsored by Senator Edward Kennedy of Massachusetts . . . Major deletions from the original S. 3585 were proposals for mandated service for all health professions, students, and Federal licensure of physicians and dentists. The Senate-passed bill includes the extension of student loans up to \$4,000 annually to students who agree to serve in shortage areas or institutions. The bill also extends the National Health Service Corps program . . . Limitations will be placed upon the number of postgraduate training physicians to foreign medical graduates, and the immigration laws would be modified to bar foreign medical graduates unless they have passed Parts I and II of the National Board of Medical Examiners examinations or the Federal Licensing Examination, demonstrated competency in oral and written English and demonstrated that their entry would not create a surplus of practitioners in a particular specialty or geographical area . . . The Tennessee Medical Association strenuously opposed the original bill sponsored by Senator Kennedy.

* * *

COMPLAINTS AGAINST PHYSICIANS RISING . . . Letters and phone calls to the TMA are increasing with regard to patient complaints against physicians. When received, such complaints are forwarded to the county medical society where the complaints originate for consideration by the local medical society's Mediation or Grievance Committee . . . Physician/patient communication is the principal issue of almost all patient complaints. If physicians will be willing to communicate effectively with both satisfied and dissatisfied patients, Mediation and Grievance Committees would have little to do. Many such complaints go directly to county medical societies, but where patients are not aware of local committees, such complaints are forwarded to the State Medical Association . . . Consequently, physician images and effectiveness are suffering as a result.

* * *

PSRO FOUNDATION REPRESENTATIVES TO VISIT HOSPITALS . . . Reported in a special edition of a newsletter from the Tennessee Foundation for Medical Care, Inc., the Foundation, in its first phase in the implementation of PSRO in Area II of Tennessee, will begin with visits to the various hospitals in the area. Hospitals have been notified that representatives of the TFMC staff will be visiting them in order to determine their performance in medical care review and the hospital's interest in participating in PSRO activities . . . A letter was sent to the chief of staffs, hospital administrators, and hospital board chairmen. The letter states that the U.S. Department of Health, Education and Welfare has officially designated and contracted with the Tennessee Foundation for Medical Care to serve as the Professional Standards Review Organization for Area II in Tennessee (eighty-four counties). In order for TFMC to assess the hospital's performance in medical care review and interest in participating in PSRO activities, members of the Foundation staff will be visiting the medical facility within the near future . . . Through this activity, the PSRO hopes to be able to identify areas in which it can assist hospitals in the assumption of review activities.

**public
service**



COMMUNICATIONS • LEGISLATION

HADLEY WILLIAMS, ASSISTANT EXECUTIVE DIRECTOR

FOUNDATION MEMBERSHIP DRIVE UNDERWAY . . . The Tennessee Foundation for Medical Care, the PSRO for Area II of Tennessee, encourages all physicians who have not already done so, to apply for membership in the TFMC. One of the requirements for an institution to be eligible for delegation of PSRO review function is that a majority of physicians with active staff privileges be members of the PSRO (TFMC) and be willing to participate in the PSRO's performance of its review activities. There are no dues and membership may be withdrawn at any time. There are presently 57% of the eligible physicians in PSRO Area II that are members of the TFMC. If you need a membership application, please contact the TFMC office in Nashville at (615) 385-2444, or write: Tennessee Foundation for Medical Care, Inc./Suite 200, Executive Square/2400 Crestmoor Road/Nashville, Tennessee, 37215.

* * *

NEW MEDICARE HANDBOOK AVAILABLE . . . A completely revised Medicare handbook has been issued by the Social Security Administration for the more than 23 million Medicare recipients. All physicians, hospitals, skilled nursing home facilities and home health agencies are being mailed advance copies. The new handbook describes the Medicare program in detail and reflects the major changes resulting from the 1972 amendments. The new book is more specific about non-covered services and describes in detail how the intermediaries compute allowable charges for Medicare reimbursement.

* * *

TMA TO SPONSOR HAWAIIAN TOUR FOR 1975 AMA CLINICAL CONVENTION . . .

The TMA Board of Trustees voted to sponsor an 8-day, 7-night tour of Hawaii to coincide with the 1975 AMA Clinical Convention. The trip will depart from Nashville and Memphis on Saturday, November 29, 1975 via chartered United Airlines DC-8 jet and will return to these two cities Sunday, December 7, 1975. Arrangements have also been made for tickets to the University of Tennessee's football game with the University of Hawaii on Saturday, December 6th. An optional 2-day tour of one of the most beautiful of the outer islands, Maui, will also be offered. Deluxe hotel accommodations will be provided at the Surfrider Hotel, one of the few hotels located directly on Waikiki beach. Cost of the tour will be \$495 per person, double occupancy, which is considerably less than round-trip tourist air fare from Tennessee to Honolulu. Because of the expected demand for space on the AMA Convention-UT Football combination tour, members are urged to make early reservations upon receipt of the announcement brochure.

in Brief

A summary of AMA, medical & health news

American Medical Association / 535 North Dearborn Street / Chicago, Illinois 60610 / Phone (312) 751-6000 / TWX 910-221-0300

AMA's EVP office announced a number of changes recently. Whalen M. Strobhar, former director of the Division of Public Affairs, was named assistant executive vice president, and Wayne W. Bradley, former assistant director of the AMA Washington Office, became director of the Division of Public Affairs. William R. Barclay, MD, and Joe D. Miller, who were assistant executive vice presidents, were named deputy executive vice presidents. Mrs. Eleanor Barry was appointed special assistant to the EVP for Board of Trustees activities. Leo E. Brown, assistant to the EVP since 1961 and an AMA staff member since 1950, has announced his retirement effective early next year.

A total of 8,148 applications were processed by the AMA's Physicians' Placement Service in 1973. As of Dec. 31, 1973, the PPS was carrying a total of 3,914 registrations--2,344 physicians seeking locations and 1,570 practice opportunities. Copies of the PPS's 1973-1974 annual statistical report are available from Physicians' Placement Service, AMA Headquarters.

The median income for office-based physicians is less today than it was in 1970, according to a report by the Library of Congress. In 1970, the figure was \$43,000; last year it was \$42,700, the same as in 1972 and 1971, the report said. During the Phase 3 wage-price control period, the report noted, physicians' fees rose at an annual rate of 4.1% while the Consumer Price Index for all items rose 9.1%.

Three new members have been appointed to the AMPAC Board of Directors. Michael P. Levis, MD, Pittsburgh; John J. Cunningham, MD, Pawtucket, R.I.; and John M. Smith Jr, MD, San Antonio, Tex., were appointed to fill vacancies left on the board when Hoyt D. Gardner, MD; Frank J. Jirka, MD; and Joe T. Nelson, MD, were elected to the AMA's Board of Trustees in June.

A \$240,000 grant from HEW has been awarded to a Johns Hopkins U. research team to monitor the performance of foreign-born versus American residents for the next two years. The study will break down foreign doctors' performance by region of medical education and by native language.

AMA now has more dues-paying members than ever before. As of Sept. 27, there were 168,509 dues-paying members, 295 more than there were in AMA's highest previous membership year, 1970, when 168,214 dues-paying members were recorded.

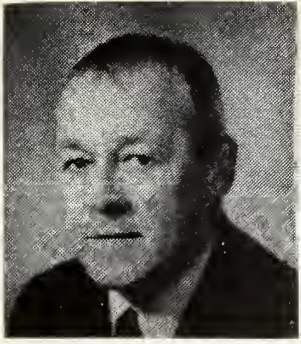
The U.S. infant mortality rate was at a record low during the first six months of 1974. The rate for the first half of 1974 was 17.1 per 1,000 live births, according to the National Center for Health Statistics. The rate was 17.9 for the same period in 1973. The lowest rate ever recorded for the month of June was registered this year--16.9.

A basic course and an advanced course on life support will be among the scientific offerings at the AMA's Clinical Convention in Portland, Ore., Dec. 1-4. Programming will include the 16th National Conference on the Medical Aspects of Sports and six special sessions on specific medical problems. For details contact Dept. of Scientific Assembly, AMA Headquarters.

HEW awarded a \$135,000 contract to the AMA to provide a training program, under state medical society auspices, on the role of the medical director in skilled nursing facilities. The program is intended to help implement a forthcoming federal regulation requiring the facilities to retain physicians as medical directors. State societies interested in conducting the seminars should contact the AMA Committee on Aging, AMA Headquarters.

"Feeling Good," a new TV health series for adults, produced by the Children's Television Workshop, premieres Nov. 20 on most Public Broadcasting System stations. The weekly series will deal with topics including alcohol abuse, cancer, child care, mental health, nutrition and prenatal care.

"I Love You, Frank," is a new AMA film showing what can go wrong in a medical emergency. Designed to motivate physicians and the public to improve local emergency services systems, the film is available on free loan to organizations and individuals from the AMA Film Library, AMA Headquarters. It may be purchased for \$200 from the Radio, TV and Film Dept., AMA Headquarters.



E. KENT CARTER

**president's
page**

Equal Care for All—The Aim of Pending Legislation

Some time ago, I was discussing medical care with the Chairman of the Department of Public Health at one of our more prestigious medical schools. I thought him to be very perceptive when he made the statement that none of the health care plans now before Congress would provide equal care to all citizens. They would only pay for care received. The more I thought about his remarks, the less I liked his perceptiveness, or at least his shortsighted point of view.

It appears to me that the government is about to provide equal care for all people. Notice, I did not say quality care. The scheme is already in operation. Payment through Medicare, Medicaid, aid to dependent children, then universal medical insurance, and payment from the cradle to the grave. Equal care will be dictated by medical manpower regulation, national licensure, relicensure, control of medical residency, both by number and type, and last but not least, assignment of physicians to practice locations may be required.

Laws are already on the books, and many others are in congressional committees to provide for all of the above. The policing of quality care is already under way. Fortunately, at the present time Medicine has maintained control of the quality care program. I doubt that we will be able to control the other elements of equal care. Add them up. Pay, training, location, quality. It spells equal care for all—not quality care for all.

Yours truly,

President

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NOVEMBER, 1974

editorials

On Being Thankful

"... Give me your tired, your poor,
Your huddled masses yearning to breathe free,
The wretched refuse of your teeming shore,
Send these, the homeless, tempest-tossed, to me:
I lift my lamp beside the golden door."

Inscription on the Statue of Liberty

The other day a friend of mine said, in a moment of pique (I know him well enough to know he didn't mean it), "I'll go out of my way for Christmas, and for Easter, too, but Thanksgiving—they can't even decide what day it's supposed to be!" As I look around, I find there are plenty of people who act as if they *really* feel that way, and not just about Thanksgiving, but Christmas and Easter, too—and prob-

ably the Fourth of July and Labor Day. It means just another day to sleep late, to eat and drink too much, to say (with apologies to Mr. Dickens), "Thanksgiving—Humbug!" (or Christmas, or Easter, and so on, as the case may be.) I confess to acting that way myself, on occasion.

National morale is just now at a pretty low ebb. We ended our longest and most unpopular war, and got our POW's back home (most of them) only to be assaulted by Watergate. We came through that by the skin of our teeth, got a new President, and found ourselves plunged into a spate of new controversies over pardon and amnesty, and a proposed increase in the income tax. Suddenly we seem to be right back where we were a year ago (or two, or three, or four). Prices are out of sight, and still rising, and there is the threat of a depression down the road. Capricious combinations of weather first too dry, then too wet, and now too cold too early have assured shortages or many foodstuffs, and if we have a cold winter, we can look forward to brown-outs or even black-outs—particularly if the coal strike should materialize. With all that, so what's with Thanksgiving?

Maybe the inscription above isn't considered, in literary circles, to be very good poetry, and maybe it's corny. And maybe you don't like standing at attention when the flag goes up to the tune of *The Star Spangled Banner*. But there are still lots of "huddled masses yearning to breathe free" who still consider the door golden. Sure, we're not *always* the "land of the free and the home of the brave." We have our ghettos, and too often we substitute sloppy sympathy for compassion. And so our government *is* in a mess. Look around. Whose government is better? If anyone prefers Castro's, or Mao's, or Chile's, or even France's or England's (not to mention Russia's), why, the "golden door" opens in both directions.

Our "poor" would be rich in India or Biafra or Bangladesh. They may not eat well, but with very few exceptions, they eat. And there is still opportunity for those willing to work. We may not recognize it, but others do—and their dream is to be one of us. It accounts, mainly, for our FMG problem. Those of us who castigate the rest of us for our hypocrisy, in so doing join us in it, because we all share a common humanity. *Let him that is without sin cast the first stone.*

The "Pilgrim Fathers" who celebrated our first Thanksgiving were laboring under no illusion that they had discovered Utopia, or even that

one can exist this side of the millennium. They endured hardships such as few of us will ever know. (Think of the anguish caused by having to turn our thermostats back five degrees, or lower our speed by ten miles an hour!) Many of them failed to survive the passage, and many more failed to make it through the first year in their new home. Yet in spite of it all, they took time out to recognize their debt to the Creator and Sustainer of life. Should we, who have been given so much, do less? On this Thanksgiving, 1974, take time to consider the golden door.

J.B.T.

Sometimes Your Worst Enemies are Right at Home

The above title is that of the article reprinted in our Viewing Box, which is one of two items to which I wish to direct your attention, the other being a communication to the Editor entitled "The Objective" (See our Mail Box). On the face of it, these two might seem to be so divergent as to have nothing in common, yet examined more closely they address the same problem, and its solution. The problem is that we are faced with progressive encroachment on our freedom to practice our art, and the papers have to do with what is seen as appropriate and inappropriate reactions to the problem on the part of members or segments of the profession. It can be perhaps simplistically but still rather accurately summarized by Pogo's famous statement, "We have met the enemy, and they is us."

I think Dr. Meyerhoff has verbalized rather well a constant nagging unrest present in most of us, and viewing our present circumstances it would be indeed remarkable if we were free of it. Perhaps he has over-stated it, but on the other hand to say he has may be unwarranted optimism. Time alone will tell. He certainly pleads his case well.

Patrick Henry was the American Revolution's most celebrated "firebrand," delivering such statements as, "If this be treason, make the most of it," and "I know not what course others may take, but as for me, give me liberty or give me death!" Yet he became governor of Virginia, and though he opposed ratification of the Constitution as being inimical to state sovereignty, he was one of the authors and champions of the Bill of Rights, and became a staunch Federalist. In short, Patrick Henry was a "Firebrand" with a cool head.

We are desperately in need of statesmen in medicine. Everyone these days is talking about rights and freedom. Usually they mean their own, without considering that wars start over the conflict of the rights and freedom of one group with those of another. We need always to keep clear in our minds that we are first servants—by our own free choice—and our first thought must be not our own rights but those of our patients. This is our only appropriate reaction. Regimentation would certainly lead to an atmosphere of unrest, which would do patient care no good. How much harm it would do depends upon whom you ask, as does what constitutes regimentation.

It certainly will serve well neither our patients nor ourselves to take an unyielding, closed-minded attitude and yet certainly there comes a time when we must say with Martin Luther, "Here I stand! God helping me, I can do no other." But insistence on rights stems often more from wounded pride than from dedication to the highest good.

The security and happiness necessary for good patient care comes, as Dr. Meyerhoff rightly observes, from our freedom. But freedom is a spiritual commodity, and is spiritually and not physically derived. There has never been in all history a freer man than Paul the Apostle in chains. We must not be slavishly submissive to either government or public, yet neither can we be rigidly unyielding. It is sad that health care, along with our school children, has been made an object of political manipulation. It will require all the "cool" all of us can muster to stick to our business and stand firm for what is best for our patients, particularly when there is disagreement among ourselves as to what that may be.

It is sad but true that our worst enemies may be right at home. May it never be said of us!

J.B.T.

It's Almost Gone . . . So What Do We Do Now?

In the year of the jubilee ye shall return every man unto his possession. . . . The land shall not be sold forever: for the land is mine: for ye are strangers and sojourners with me. Leviticus 25:13, 23.

Until relatively recent times, man was closely tied to his own plot of land, from which he derived stability and responsibility. The land and what it produced were carefully husbanded. According to the Levitical code, no Israelite could

be forever deprived of his land: every fiftieth year it returned to his family. In nominally Christian medieval Europe, where by the divine right of kings all the land belonged to the king as a steward for God, this came to be translated as "the people belong to the land." They were sold with it. Either way, men and land were inseparable. One need only take note of the landscapes of Europe, under careful cultivation for centuries, to see what grandeur this symbiotic relationship of man and nature can produce. Nothing was wasted, and to despoil any piece of land was unthinkable. There was too little of it.

Then suddenly everything exploded as the world opened up, with vast continents in both hemispheres waiting to be exploited by adventuresome Europeans. There was so much land, there were so many trees, so many animals—all for the taking. Clear the land, wear it out, move on and leave it to the elements—there was plenty more. Lots of buffalo for robes. Lots of egrets for women's hats. Lots of everything, coal and oil too, later. So Americans very early developed a "throwaway" philosophy. It isn't modern, though it didn't really "catch on" as far as the land was concerned until the past few decades, because particularly in the rural areas of this country there has been a strong attachment to the land. It began to be lost as we became mobile—with automobiles and lots of gasoline.

Somewhere around five or six millennia ago man learned to put his thoughts into writing. It was only by laborious effort that a "book" (chiseled in stone) was written, and both the scribe and his efforts were revered—probably inordinately. Then came ink on animal skins, ink on papyrus, and finally ink on paper. One would think that with all the effort involved, people would have taken care to commit to writing only the important, yet we find one writer of 4000 years ago complaining that "everyone wants to write a book." But the whole world population was only a few million, and most of them didn't live long.

Then came moveable type, the printing press, newsprint, and finally high speed presses. Where once only a few could read what fewer had written, now multitudes can read—and demand—what many have written. Everybody still wants to write a book—only now there are several billion of us. When I was a boy, my father had all the National Geographic Magazines from 1914 on. This was one of the earliest

—and the still one of the few—magazines regularly printing in color. Color pictures were a real treat. Now color of acceptable quality can be produced on newsprint. Reams of paper from multiplied forests of trees go daily into, then out of our homes—as trash, to be burned, or, hopefully, recycled.

Our demands for paper, energy, petrochemicals for plastics, and much else are insatiable and inordinate. Obsolescence is built into everything—automobiles, stoves, clothing—everything. The way of life developed in this country over the past 40 years or so, with its much earlier roots, is catching up with us. We are a highly mobile society, and many who are now adults—not to mention children—have never developed a sense of belonging, and the sense of responsibility that goes with it. Coupled with the throw away philosophy, it is easy to arrive at the point where everything comes to be something exclusively for one's own use, without regard to the needs of others—since "others" also become objects to be used—all to be soon discarded.

What is happening to our libraries is a prime example of the problem facing society in many areas. No one not either a librarian or a member of a library committee can fully comprehend the magnitude of the problem, since most of us still cannot bring ourselves to face the extent to which the veneer of civilization has eroded. The annual loss of volumes for any given library will number in the thousands. These are not volumes signed for and not returned, but volumes which simply "walk out." Not only are irreplaceable bound volumes of journals borrowed and not returned (euphemistic for stolen) but articles are ripped out (as are book pages) of those which remain. (An editor of *The JAMA* once opined, in print, that people do not borrow books—they only steal them.)

As has been mentioned in a previous editorial, libraries have fallen on hard times. But even had they not, many of the lost and destroyed volumes are not replaceable at any price. Consequently administrations have had to strike back in the only way they can—by imposing restrictions. An example which is perhaps at present extreme, but not unlikely to become general, is the policies of the rare book room of the Yale Medical Library. Outside the room public lockers, with locks, are furnished each individual entering the room, after carefully ascertaining that he has the *right* to enter. Into the locker go his coat, brief case, books, *pens*, *ball points*,

knife, notebooks, etc. The only items which may be taken into the room are a tablet of yellow paper (no white), index cards, and pencil. Nothing may under any circumstances be removed from the room except the items allowed in. If you think these restrictions extreme, consider the alternatives.

You may be sure that restrictions on the use of *your* library will be forthcoming, if they do not already exist—controlled access, noncirculation of periodicals, tighter security. You may also be sure it will be inconvenient. Irresponsibility can only lead to strictures on our freedom. If we will not use wisely what little land is left—even that privately held—then land use laws become not only necessary but obligatory. If we refuse to regulate voluntarily our use of energy, or other scarce items, rationing must result.

Of many things on this globe it can be said, "It's almost gone." So ask yourself, "What do we do now?"

J.B.T.

Line up the Spittoons, Boys

Shifting his cud, he lets fly a brown stream from pursed lips, looks right and left, and after a studiously casual windup, zips a hot one over the plate. "Strike one!"

Sweet old granny sits and rocks in her chimney corner, nothing escaping her bright eyes. "Hewo, Fweetheart," she lisps, daintily wiping away the brownish discoloration that appears like magic in the lines around the corners of her just-opened mouth.

What do these two have in common? A mouthful of tobacco, that's what—and a good chance of oral cancer to boot.

In a sort of sidelight to his 20 year study of 25,000 snuff dippers and tobacco chewers, Dr. James F. Smith presents pretty convincing evidence that to get arterial disease from tobacco, you have to smoke it. (See page 913, this issue.) That goes for lung cancer, too. This is an important epidemiological point.

Before you dash out to your favorite tobacco shop to grab a twist, though, check out the literature on oral cancer (including that of our same Dr. Smith.) Unless you want tobacco juice dribbling down your neck from a hole in the floor of your mouth, forget it!

Moral: Tobacco in any form is bad news.

J.B.T.



Hypertension Screening

To the Editor:

Enclosed you will find a paper outlining the recent hypertension screening pilot project done in Knoxville, Tennessee in 1973 under the sponsorship of the East Tennessee Heart Association, and, in particular, of the hypertension committee. . . . (see page 909, this issue)

As chairman of the Tennessee Heart Association Hypertension Screening Committee, I can report to you that by the end of this year, we anticipate more than 100,000 Tennesseans will have been screened for hypertension, purely through the voluntary efforts of local heart associations in all sections of the state. As you might anticipate, our aim is not merely to screen the population a single time, but rather to stimulate ongoing screening efforts by organizations other than the heart association on a regular basis. Hopefully, this will help identify new hypertensive patients each year, and the overall morbidity and mortality from the effects of hypertension may in the long range, be reduced significantly. . . .

DWIGHT R. WADE, JR., M.D.

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The Objective

To the Editor:

The objective is freedom.

After the free way of life was institutionalized, subsequent generations had only to enjoy this precious heritage. While simultaneously reaping the harvest of this ancestral planting, some generations have been called on to preserve it against outside attack. Our generation is being called on to meet a threat to freedom from within, for some of us would eliminate it as our way of life.

For those of us who have become aware of this sacred gift of the past, and for those of us who have rediscovered it as indeed the finest basis by which to relate to each other politically, it has become imperative to insure its preservation for ourselves and for future generations.

To accomplish this, we must fully understand the nature of what we are dealing with; we must understand the essence of freedom.

Its fundamental characteristic is that it is an *inalienable* quality of man. This means it cannot be given to a person, but rather a person has it. No State can grant it; no State can take it away. The only thing that can happen is that it can be *exercised* or be *prevented* from being exercised. The Declaration of Independence stated, for all time, this inalienability of freedom for Man, and the Bill of Rights spelled out specifically the freedoms with which nothing must inter-

fere. So fundamental was this realization of man's nature that it called for the redefining of the role of government itself to that of securing the blessing of liberty.

Some, in the area of medicine, would forego this basis and institute numerous procedures that would impair the freedom of patients and doctors. Seemingly well-meaning people concerned with better health care, while they can appreciate the value of health, do not seem to be able yet to appreciate the value of freedom. Or if they can, they give it a lesser value than has been the judgment of past generations—*Who have given up their health, become maimed, and even given up their very lives so that freedom shall prevail.*

While most of the threats to our free way of life were obvious as to who the enemy was and as to how to deal with him (such as the attack on Pearl Harbor), this current turbulence and eddy of history has placed us in a situation where the enemy is our seemingly benign neighbor, and so the tactic for preserving freedom does not so readily come to us.

The particular characteristic of this situation is that it would seem that a large number are for regimenting medicine. While polls do not confirm this statistically, there are enough people who either want it or who nonetheless are pushing for it or whose push carries weight, so that legislators are on the verge of attempting to nationalize medicine. What is the tactic then when the vagaries of a cherished, freely-operating, democratic society seems to turn to foregoing freedom itself? How can a minority bring about its preservation?

Another characteristic of this current turbulence is that doctors, by a very large majority, when polled about their own convictions, are for the free way of life. Some, however, would nevertheless forego it because they feel obliged to comply with what appears to be the wishes of the public. The tactical question becomes one then of how can doctors, few in number compared with an apparently large and weighty public group, prevail for freedom.

To help us make the effective tactical choice, we have the benefit of the experience of colleagues in foreign countries where certain methods did not succeed. We also have been using certain approaches in the past decade which have been unsuccessful in abating the gradual regimentation of medicine. We know, or should know, therefore, what tactics haven't worked.

We have relied on the well-earned respect and prestige that the profession of medicine has held for centuries in legislative halls. Whatever force is producing this turbulence in history, it is causing a disregard for the professional expertness and status of the physician.

We have tried "partnership with government," "cooperation," "coordination," and "negotiation," only to find the government continuing to wield its big sticks of executive decree and legislative command to further deprive patients and doctors of their freedom.

Physicians in foreign countries, and recently in Canada, waited for the final ax to fall, struck, and crumbled their own strike. Their opposition seemed to stem from the heat of the moment and did not carry the sustained strength of firm conviction regarding the free way of life. The sagacious instruments of wisdom, the courts, which usually keep the

ship of State on an even keel, have been unable to grapple with this ill-wind by keeping it on the freedom course.

If our own hearts did not tell us this about freedom right from the beginning, we can now plainly see that freedom cannot lean on professional prestige; freedom cannot be placed in the hands of those who carry a big stick over us; freedom cannot be risked by being put up for negotiation; and alas, freedom cannot be entrusted even to those who are usually wise. The fountain of freedom gushes rather from the realization of the preciousness of an immense gift that has been given to us, or from the rediscovery ourselves of it coursing through our veins. Either of these *feelings*, once experienced, makes it the *only* way of life for us.

These feelings immediately tell us exactly what must be done to preserve it. We preserve it *by living it ourselves*. We preserve it by *exercising* our inalienable freedom. We preserve it *by continuing to practice free medicine in our offices and hospitals NO MATTER WHAT*.

Seeing such heart-felt behavior, legislators will be awakened to the fact that there are people in this country who *cannot* be executive-decreed or legislated out of their inalienable freedom. This should reawaken them to the inalienability of freedom and shift them from their tyrannical course.

Should the momentary turbulence continue to deflect them into acting as they have till now and not let them see *our* handwriting on the wall, and should they try to pull a Canada here, our *prior* search of our own hearts will have us well fortified. Unlike the Canadian physicians who were caught ill-prepared and impotently reversed a momentary stand, we will now have ourselves well geared for the course we *must maintain no matter what*.

For unless we mean *no matter what*, unless we mean the jail and inordinate fines to which the Canadian physicians were subjected, then we do not really believe in freedom. However, if the search of our own hearts does find freedom there, there is no force on earth that can deter this indomitable conviction. For such is the nature of freedom. Lincoln knew it when he said: ". . . all the armies of Europe, Asia, and Africa combined could not force us to take a drink from the Ohio or make a track on the Blue Ridge in a thousand years. . . . If destruction be our lot, we must ourselves be its author and finisher. As a nation of free men we must live through all time or die by suicide."

We have had the good fortune of living in an age after history opened the eyes of Man to this essence of his being. We have been bequeathed the institutions to preserve a life of freedom. We can give them up and live again as slaves or we can augment the free way of life.

We can choose the living death of regimentation or the vibrant life of freedom. We can be the generation that vanquished the threat from within.

Suicide or freedom.

The choice is ours.

GORDON R. MEYERHOFF, M.D.
19 Hillside Ave.
Roslyn Heights
Long Island, N.Y. 11577

in memoriam

McCALL, GEORGE W., Bristol, died September 24, 1974, age 65. Graduate of the Medical College of Virginia, 1934. Member of Sullivan-Johnson County Medical Society.

new members

The JOURNAL takes this opportunity to welcome these new members of the Tennessee Medical Association.

BLOUNT COUNTY MEDICAL SOCIETY

J. Thomas Mandrell, M.D., Alcoa

CHATTANOOGA-HAMILTON COUNTY MEDICAL SOCIETY

Richard S. Lasky, M.D., Chattanooga
Moon Wha Hong, M.D., Chattanooga

CONSOLIDATED MEDICAL ASSEMBLY OF WEST TENNESSEE

William C. DeSouza, M.D., Trenton

MEMPHIS-SHELBY COUNTY MEDICAL SOCIETY

Wilmer L. Neal, M.D., Memphis
Stanley S. Schwartz, M.D., Memphis

ROANE-ANDERSON COUNTY MEDICAL SOCIETY

Isham M. Cox, M.D., Rockwood
Charles E. Darling, Jr., M.D., Oak Ridge
Mark W. Morris, M.D., Oak Ridge
D. Thomas Upchurch, M.D., Oak Ridge

programs and news of medical societies

Knoxville Academy of Medicine

The Knoxville Academy of Medicine met October 8 at the KAM Headquarters Building. The Continuing Medical Education Program consisted of the following:

Medicine—Mr. Dixie E. Snider, Center of Disease Control, Tuberculosis Control Division, Atlanta, spoke on "Current Epidemiology and Preventive Therapy of Tuberculosis."

Psychiatry—Kenneth B. Carpenter, M.D., presided at a discussion of "Presentation and Discussion on Crisis Intervention."

Pathology—Area pathologists met on October 16 and discussed slides of interesting and unusual cases.

A Symposium in Internal Medicine was held October 18 at the University Memorial Hospital, sponsored by the Knoxville Society of Internal Medicine in conjunc-

tion with the Department of Medicine at UT Knoxville Clinical Education Center.

A Symposium on Electrocardiography will be held each Wednesday during the month of November and on Friday, December 6th and December 13th.

Nashville Academy of Medicine and Davidson County Medical Society

Approximately 50 members of the Academy's Communications Bureau reviewed 200 Tel-Med tape scripts for medical accuracy and relevancy during the month of September. The Academy has announced that Tel-Med equipment has been established in the Academy Building and will go into operation very shortly. Tel-Med is a free public health information service by telephone for approximately 450,000 residents of Nashville and Davidson County.

national news

THIS MONTH IN WASHINGTON (From Washington, Office, AMA)

The Senate has overwhelmingly passed legislation that would require one-fourth of all medical and dental school graduates to spend at least two years in the nation's slums and rural areas where there are shortages of physicians.

Earlier the Senate voted down a much more sweeping bill sponsored by Senator Edward Kennedy that would have required mandatory federal service for all health professions students and national licensure and relicensure for physicians and dentists.

Hours before the first Senate vote Senator Kennedy, aware that he was losing liberal support, shelved his Health Subcommittee's \$5.1 billion, five-year bill and offered a substitute measure which was trounced 57-34. Instead the Senate adopted a measure sponsored by Senator J. Glenn Beall, Jr., (R-Md.) and went on to pass a three year, \$2 billion health manpower bill by a vote of 81-7.

The bill finally approved by the Senate was stripped of most of the controversial provisions of the original Kennedy bill and was a victory for the American Medical Association, the American Dental Association, and the Association of American Medical Colleges.

The Senate bill calls for a three-year extension of present federal programs for aiding medical education at a total cost of about \$2 billion. Capitation grants for medical schools would be continued at a high level despite the administration's request for a cutback.

The Beall substitute measure provides federal aid to medical and dental schools that agree to allocate 25 per cent of their classroom space to students volunteering to serve in areas short of medical care workers. In return for either civilian or federal service under the National Health Service Corps, the students would receive scholarships.

Another casualty of the Senate voting was the proposal for federal standards for licensing and relicensing physicians and dentists, a plan that stirred wide protest within the professions.

Immigration standards would be tightened to restrict the number of foreign medical graduates under the Senate bill.

* * *

On the other side of the Capitol, a House subcommittee has approved a counterpart bill to the Senate manpower legislation that would establish federal scholarships intended to increase the number of doctors in the nation's rural areas and urban slums where there are doctor shortages.

The House subcommittee's bill authorizes \$240 million over three years for National Health Service Scholarships paying \$9,200 to \$9,500 a year to cover the cost of a medical education.

In return, the scholarship recipients would have to spend two to four years serving in areas with doctor shortages. Non-scholarship students who volunteer to practice in areas with doctor shortages would receive a guaranteed income of \$28,000 a year until they get their practices started.

The bill would also give medical schools a grant of \$2,100 a year for each student—\$400 less than the schools now receive.

But any graduate who does not practice in an underserved area would have to repay the government the money given to the medical school.

Though the House bill differs sharply from the Senate version, particularly the Senate provision forcing medical schools to have one-fourth of their classes on federal scholarships requiring two years of practice in underserved areas, the House subcommittee Chairman, Paul G. Rogers, (D-Fla.), believes the difference can be resolved when the two bills go to conference.

* * *

Undaunted by collapse of the National Health Insurance (NHI) measure in the House Ways and Means Committee in late summer, Senator Russell Long (D-La.), is forging ahead with plans to ram a bill through the Senate in the strained

atmosphere of a "lame duck" Congress. Long is Chairman of the Senate Finance Committee and sponsor along with Senator Abraham Ribicoff (D-Conn.), of a NHI plan featuring Social Security financed and operated catastrophic health insurance plan for all. The Long-Ribicoff bill enjoys the official support already of 25 Senators and rates some chance of Senate passage.

But the chances of passage of a version of such a Senate bill by the House in a "lame duck" session after the November elections is considered extraordinarily slim.

* * *

President Ford's long-heralded summit economic conference produced relatively little talk about health care costs and inflation, despite the fact that HEW Secretary Weinberger has of late frequently sounded such an alarm.

Nor was there any indication during the Washington parley that the Administration was considering controls at this time, although Senate Majority Leader Mike Mansfield (D-Mont.), urged the 800 delegates to request such controls.

However, it became clear to conference observers that the President will ask Congress to approve certain but unspecified tax changes and to cut the federal budget to combat inflation.

American Medical Association President Malcolm C. Todd, a delegate to the summit conference, said that he agreed with the President with respect to avoiding controls at this time—"particularly discriminatory cost controls."

"Every American, every physician, has the duty to assist in solving the number one problem of the nation—inflation," Dr. Todd said, noting that the AMA has repeatedly stressed the need for restraints by physicians in avoiding unjustifiable charges and fee increases.

A summary of the earlier pre-summit session on health was presented by Michael Zubkoff, Professor of Health Economics at Meharry Medical College and Vanderbilt University. He stated that "it is generally recognized that the health sector is both a hostage and a cause of inflation."

According to Professor Zubkoff, the pre-summit meeting had determined certain "structural defects" in the health care delivery system which included:

"Fee-for-service payment for physicians and cost-plus reimbursement for hospitals . . . encourages cost growth.

"First dollar insurance coverage reduces cost-consciousness by consumers.

"Consumers lack knowledge to become

aggressive, informed purchasers of health care."

Among the "common themes" stressed at the pre-summit health conference, Zubkoff said, were that the federal commitment to health care should not be reduced; that structural reform is needed; and that existing incentives and regulatory mechanisms are inadequate.

"There was a definite lack of a widespread consensus on solutions to cost problems in health during the pre-summit meeting," Zubkoff told the summit meeting.

While pleased that President Ford had not called for wage-price clamps by the federal government, Dr. Todd at the same time criticized the Administration for "singling out" health by "annualizing" monthly consumer price index levels. The practice of projecting the yearly increase on the basis of what happens during one month or several months has been followed only on "health" by the HEW Department so as to bolster its contention that the health segment should be isolated for controls, Dr. Todd charged.

The AMA President noted that in the past three years physicians' fees have risen 17.6 per cent compared with 22.9 per cent for the economy as a whole and, for example, 32.9 per cent for legal charges.

Suggested steps to curb medical costs, listed by Dr. Todd, were pre-admission testing; expansion of ambulatory care services; earlier discharge from hospitals; avoidance of unnecessary hospitalization; reducing wasteful testing, prescribing and treatment; and decreasing the cost of malpractice insurance.

In addition, Dr. Todd said, there must be incentives to produce more family physicians and to plan for needed specialists only.

"Perhaps physicians should attempt voluntarily to guide their fee-setting decisions by tying their charges to the consumer price index levels and not exceeding them," Dr. Todd suggested.

* * *

A wide range of health care related subjects were discussed at a recent meeting between an AMA delegation and Health, Education, and Welfare Secretary Caspar Weinberger.

Malcolm Todd, M.D., President of the AMA, said the Secretary and his aides were told that the AMA desires the best possible national health insurance (NHI) program that can be worked out, but cautioned against any hurry-up approval in an emotionally-charged Congress late in the session.

Dr. Todd said he emphasized that the number one problem facing the nation at present is inflation and that therefore any NHI program should have a minimal impact on this problem. AMA officials urged that NHI be kept outside of the Social Security Administration.

The AMA delegation urged that controls not be reimposed on the medical profession, citing the AMA's urging of moderation by physicians to keep fees in line with expenses.

* * *

The Food and Drug Administration is planning a letter to physicians alerting them to a series of studies to be published in *Lancet*, the British Medical Journal, that finds a higher-than-normal incidence of cancer of the breast among women age 60 and older who have been treated with Reserpin for high blood pressure. A panel of experts appointed by the HEW Department will review the data.

* * *

The Food and Drug Administration has indicated to Congress it will order warning labels placed on oral diabetic preparations when a new study of the drug's safety and efficiency is published soon.

Alexander Schmidt, M.D., FDA Commissioner, told the Senate Monopoly Subcommittee headed by Senator Gaylord Nelson that the FDA endorses a 1970 study by the University Group Diabetes Program which found that the drugs (tolbutamide and phenformin) were linked with a heart disease death rate twice as high as for diabetics taking insulin or no drug at all through diet.

Lawsuits challenging the FDA's right to impose warning labels have deterred the agency from action to date, Dr. Schmidt told the Subcommittee. He said many physicians have something close to a "religious belief" that the oral diabetic preparations by lowering blood sugar decrease the likelihood of cardiovascular complications among diabetics.

Major opponent of relabeling is the Committee on the Care of the Diabetic, composed of some 180 physicians. The issue has proved a serious controversy among specialists in the treatment of diabetics, with experts taking both sides.

The FDA is relying on the audit to strengthen its hand sufficiently in the legal fight to allow it to go ahead with warning labels, but the prospects are that the actual implementation of such an order will be tied up in the courts for some time.

medical news in tennessee

Dr. Jewett Named Medical School Dean

East Tennessee State University has appointed Dr. Robert E. Jewett dean of the University's College of Medicine.

Dr. Jewett is a professor in the division of Allied Health Professions of Emory University School of Medicine in Atlanta. ETSU President D. P. Culp said that Jewett would be immediately responsible for organizing ETSU's School of Medicine and its staff.

Dr. Jewett's appointment has ended a search of several weeks for a dean and puts the Johnson City institution closer toward its goal of a federally and state supported medical school.

UT College of Medicine Announces Appointments

Two faculty members of the University of Tennessee College of Medicine have been appointed to administrative positions according to Dr. Albert Farmer, Dean of the College.

Dr. Phillip George, professor of pediatrics, has been named associate dean for clinical education. Dr. Hershel P. Wall, associate professor of pediatrics, has moved up to assistant dean for admissions for the college.

Dr. George will coordinate the clinical education of all medical students on the Health Sciences campus as well as the training of physicians in UT's residency program.

Dr. Wall will have responsibility for continuing and maintaining high standards of qualifications for applicants accepted for medical training at UT.

Tennessee Pediatric Society Holds Annual Meeting in Jackson

Approximately 75 pediatricians and general practitioners from Tennessee and other states attended the Annual Meeting of the Tennessee Chapter of the American Academy of Pediatrics and the Tennessee Pediatric Society in September in Jackson.

Featured speakers for the meeting included Dr. Stanley E. Crawford, dean of the University of Texas Medical School; Dr. Samuel L. Katz, chairman of the Department of Pediatrics at Duke University School of Medicine and Dr.

Robert B. Lawson, professor and chairman of the Department of Pediatrics at Variety Children's Hospital.

Knoxville Area To Get Chronic Dialysis Center

Almost three years in the planning, the Chronic Dialysis Center of Knoxville has become a reality. In mid-September, the Center began treatment of chronically ill victims of kidney disorders. The new center is located in the Fort Sanders Professional Building and is operated and maintained by a non-profit organization. The Dialysis Clinic, Incorporated, of Nashville. The center has been approved through the East Tennessee Development District, a governmental planning agent, and houses the facilities necessary for the treatment of East Tennessee residents stricken with chronic renal failure. Dr. Joe Leonard, a Knoxville Nephrologist, is the director of the new Center.

The Knoxville Center has been initially approved for five beds, making possible the treatment of ten kidney patients on a regular basis. One group of five patients will be dialysed on a Monday-Wednesday-Friday schedule and the other group on Tuesdays, Thursdays, and Saturdays. Each patient requires six hours on the machine three times each week. The Center is designed to be capable of doubling its potential to ten beds and twenty patients, and if a night schedule can be set up, the Center will be able to dialyse forty patients each week. It is expected that the Center will eventually function as a training station where patients may learn the complicated procedure of home-dialysis, and space has been provided for that purpose.

personal news

DR. OTTO BILLIG, Nashville, clinical professor of psychiatry at Vanderbilt University Medical School, has been awarded the Rush Bronze Medical Award for his scientific exhibit, "Cross Cultural Studies of Psychotic Graphics," by the American Psychiatric Association.

DR. MORRIS D. FERGUSON, Lebanon, has been elected Chief of Staff of the McFarland Hospital.

DR. JAMES G. HUGHES, Memphis, chairman of the pediatrics department at the University of Tennessee Center for Health Sciences, has been named winner of the 1975 Jacobi Award, by the American Medical Association.

announcements

CALENDAR OF MEETINGS

NATIONAL

1974

- Nov. 17-20 Southern Medical Association, Marriott Motor Hotel, Atlanta, GA
- Nov. 18-22 American Heart Association, Fairmont, Dallas, TX
- Nov. 21-24 American Association for Clinical Immunology and Allergy, Pier 66, Ft. Lauderdale, FL
- Nov. 30- Dec. 4 American Medical Association, Portland, OR
- Dec. 1-6 Radiological Society of North America, Palmer House, Chicago, IL

- Dec. 7-10 American Society of Hematology, Marriott, Atlanta, GA
- Dec. 7-12 American Academy of Dermatology, Palmer House, Chicago, IL
- Dec. 9-12 Southern Surgical Association, Boca Raton Hotel and Club, Boca Raton, FL

1975

- Jan. 31- Feb. 2 Southern Radiological Conference, Grand Hotel, Point Clear, AL
- Feb. 10-13 American College of Cardiology, Houston
- Feb. 12-15 Southern Neurosurgical Society, Hilton Palacio del Rio, San Antonio, TX
- Feb. 15-19 American Academy of Allergy, Town and Country, San Diego, CA
- Feb. 21-28 American Society of Clinical Pathologists, International and Convention Center, Las Vegas, NV

TMA

continuing education opportunities

The continuing medical education accreditation program of TMA has full approval by AMA's Council on Medical Education. If the continuing medical education program of your hospital or medical society is accredited by TMA's committee, you may receive for your attendance at its functions Category 1 credit for the AMA Physician's Recognition Award. If you wish information as to how your hospital or society may receive accreditation, write: Director of Continuing Medical Education, Tennessee Medical Association, 112 Louise Avenue, Nashville, Tennessee 37203.

Clinical Training Program For Practicing Physicians

Opportunities for advanced clinical education for physicians in family practice and in various subspecialties have been developed by the School of Medicine and the Division of Continuing Education of Vanderbilt University. The practicing physician, with the guidance of the participating department chairman, can plan an individualized program of one to four weeks to meet recognized needs and interests. The experience will include contact with patients, discussion with clinical and academic faculty, conferences, ward rounds, learning individual procedures, observing new surgical techniques, and access to excellent library resources. Experience in more than one discipline may be included.

Participating Departments and Divisions

- Anesthesiology Bradley E. Smith, M.D.
- Medicine Grant W. Liddle, M.D.
- Cardiology Gottlieb C. Friesinger, III, M.D.
- Chest Diseases James D. Snell, M.D.
- Dermatology Robert N. Buchanan, Jr., M.D.
- Endocrinology & Diabetes .. Grant W. Liddle, M.D.
- Gastroenterology Steven Schenker, M.D.
- Hematology Sanford B. Krantz, M.D.
- Infectious Diseases Zell A. McGee, M.D.
- Renal Diseases H. Earl Ginn, M.D.
- Clinical Pharmacology John A. Oates, M.D.
- Neurology Gerald M. Fenichel, M.D.
- Obstetrics & Gynecology John S. Zelenik, M.D.
- Orthopedics Paul W. Griffin, M.D.
- Pathology William H. Hartmann, M.D.
- Pediatrics David T. Karzon, M.D.
- Psychiatry Marc H. Hollender, M.D.
- Radiology John R. Amberg, M.D.
- Surgery
 - General H. William Scott, Jr., M.D.
 - Neurological William F. Meacham, M.D.
 - Ophthalmology James H. Elliott, M.D.
 - Oral H. David Hall, D.M.D.
 - Pediatric James A. O'Neill, M.D.
 - Plastic John B. Lynch, M.D.
 - Thoracic & Cardiac Harvey W. Bender, M.D.
 - Urology Robert K. Rhamy, M.D.
 - Cancer Chemotherapy .. Vernon H. Reynolds, M.D.

ELIGIBILITY: All licensed physicians are eligible.

ADMINISTRATIVE FEE: \$200.00 per week.

CREDIT: American Medical Association Physician's

Recognition Award and American Academy of Family Physician's Continuing Education accreditation.

APPLICATION: For further information and application, contact:

Paul E. Slaton, M.D., Director, Continuing Education
305 Medical Arts Building
Nashville, TN 37212 Tel. 615-322-2716

The University of Tennessee College of Medicine Continuing Education Courses 1974-1975

Nov. 20-21	Emergency Medicine, U.T. Medical Units
December 6-7	Otolaryngology for the Family Physician, U.T. Medical Units
Feb. 19-20	Office Gynecology, U.T. Medical Units
Mar. 8-9	Obstetric Anesthesia, U.T. Medical Units
Mar. 9-12	Basic Principles of Rhinoplasty, U.T. Medical Units
Mar. 17-22	General Review Course, U.T. Medical Units
April 19-20	Pediatric Anesthesia, U.T. Medical Units
May 15-16	Office Orthopedics, U.T. Medical Units
May 19-23	Intensive Review of the Science of Anesthesiology, U.T. Medical Units
May 28-31	Clinical Electrocardiography, Paris Landing State Park Inn, Buchanan, Tennessee

Schedule for Upcoming NCME Programs

Nov. 18- Dec. 1	THE HAND AS AN INDICATOR OF SYSTEMIC DISEASE, with Marguerite Lerner, M.D., Clinical Professor of Dermatology, Yale University School of Medicine, New Haven, Connecticut. PARASITIC INFESTATION: SCABIES, with Silas E. O'Quinn, M.D., Professor of Dermatology and Dean of Medicine; and Harold Trapido, Ph.D., Professor of Tropical Medicine and Medical Parasitology, both at Louisiana State University School of Medicine in New Orleans. IMPOTENCE, with Philip A. Sarrel, M.D., Associate Professor of Obstetrics and Gynecology at Yale University Medical School, and Lorna Sarrel, Co-Director, Human Sexuality Program, Yale University Student Mental Hygiene Department in New Haven, Connecticut.
Dec. 2- Dec 15	SEX IN AGING AND DISEASE, with Philip A Sarrel, M.D., Associate Professor of Obstetrics and Gynecology at Yale University Medical School, and Lorna Sarrel, Co-Director, Human Sexuality Program at Yale University Student Mental Hygiene Department, New Haven, Connecticut. MEDICAL ADVANCES INSTITUTE, with James L. Henry, M.D., President of the Ohio State Medical Association;

Paul Y. Ertel, M.D., Director of the MAI Clinical Systems in Ohio; William A. Millhon, M.D., Chief Physician Advisor, Riverside-Methodist Hospital, Columbus, Ohio.

FEMALE STRESS INCONTINENCE: DIAGNOSIS AND DECISION, with Vincent J. O'Connor, Jr., M.D., Professor of Urology, Chairman, Department of Urology, Northwestern Memorial Hospital, Chicago.

(Program scheduling subject to change)

For more information about NCME, write The Network for Continuing Medical Education, 15 Columbus Circle, New York, New York 10023.

Audio-Cassette Directory Available

To aid the physician in locating little-known but often useful programs, Cassette Information Services of Los Angeles has published its 1974 Directory of Spoken-Voice Audio-Cassettes.

The CIS Directory is not a catalog, but rather a compendium of program titles and subjects that can be found on audio-cassettes, a brief description of each (including price), and from whom the tape or more information may be obtained. The directory itself is available for \$5.00 from Cassette Information Services, Box 17727, Los Angeles, CA 90057.

Internists To Study Clinical Medicine In Los Angeles

The American College of Physicians (ACP) will sponsor a five-day postgraduate course entitled "Advances in Diagnosis and Treatment in Clinical Medicine" on December 2-6, 1974, in Los Angeles, CA. The course, held in conjunction with the University of California School of Medicine and Harbor General Hospital in Torrance, CA, will take place at the Los Angeles Marriott Hotel.

The course is planned to provide a comprehensive review of recent advances in clinical medicine. The format will include presentations followed by question and answer periods. In addition, there will be workshops and luncheons incorporated into the course.

For information and Registration: Registrar, Postgraduate Courses, ACP, 4200 Pine Street, Philadelphia, PA 19104.

The American College of Physicians Postgraduate Courses

THE RESPECTIVE ROLES OF MEDICAL AND SURGICAL TREATMENT IN CARDIAC DISEASE IN THE ADULT. University of California at Los Angeles and Cedar-Sinai Medical Center, Century Plaza Hotel, Los Angeles, CA, Jan. 16-18.

ADVANCES IN NEUROLOGY, Virginia Mason Medical Center, Seattle, WA, Jan. 22-24.

GASTROENTEROLOGY—SELECTED TOPICS OF CURRENT INTEREST, Alton Ochsner Medical Foundation, New Orleans, LA, Jan. 27-29.

CURRENT CONCEPTS IN ONCOLOGY, University of Michigan Medical Center, Towsley Center for Continuing Medical Education, Ann Arbor, MI, Feb. 3-7.

INFECTIOUS DISEASES, Stanford University Medical Center, Stanford, CA, to be held at Squaw Valley, Olympic Valley, CA, Feb. 10-14.

Info: Registrar, Postgraduate Courses, ACP, 4200 Pine Street, Philadelphia, PA 19104.

The Postgraduate Medical Education Committee of the American College of Chest Physicians 1974-1975 Postgraduate Programs

The continuing education program for physicians sponsored by the American College of Chest Physicians has been accredited by the Council on Medical Education of the American Medical Association and is acceptable for credit toward the AMA Physician's Recognition Award.

For further information contact: Bradford W. Claxton, M.Ed., Director of Continuing Education, American College of Chest Physicians, 911 Busse Highway, Park Ridge, Illinois 60068.

1975

February 24-27

"Pediatric Cardiopulmonary Problems—Diagnosis and Management—Newborn to Young Adult"

Location: Snowmass, Aspen, Colorado

February 24-28

"The Diagnosis and Treatment of Acute and Chronic Respiratory Failure"

Location: Miami Beach, Florida

March 12-14

"Cardiology for the Practitioner"

Location: Warren, Vermont

April 2-4

"Occupational Pulmonary Diseases"

Location: Morgantown, West Virginia

April 30-May 2

"Pulmonary Disease: The Changing Scene"

Location: Toronto, Canada

June 23-25

"Critical Care—A Postgraduate Course for Nurses and Physicians"

Location: Nashville, Tennessee

School of Medicine Medical College of Georgia Augusta, Georgia

1975

CONTINUING MEDICAL EDUCATION

BASIC NEUROLOGY FOR THE PRACTITIONER

February 20-21, 1975

CLINICAL PSYCHIATRY

February 27-28, 1975

MEDICINE AND RELIGION

March 10, 1975

MAKING SURGICAL DECISIONS

March 13-14, 1975

NOVEMBER, 1974

GASTROINTESTINAL DISEASES

The Atlanta Marriott, Atlanta, Georgia

March 20-22, 1975

INFECTIOUS DISEASES—DIAGNOSIS AND MANAGEMENT

April 3-4, 1975

RECENT ADVANCES IN OPHTHALMOLOGY

The Cloister, Sea Island, Georgia

May 19-21, 1975

INTERNAL MEDICINE

Buccaneer Motor Lodge, Jekyll Island, Georgia

June 12-14, 1975

PHYSICIANS CONTINUING EDUCATION SERIES

Dalton, Georgia

January 9, February 13, March 13, and April 3, 1975

PHYSICIANS CONTINUING EDUCATION SERIES

Dublin, Georgia

October 22, and November 26, 1974;

January 28, February 25, and March 25, 1975

Contact: Division of Continuing Education

Medical College of Georgia

Augusta, Georgia 30902

Cancer Information

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WHAT? A valuable cancer education service through toll-free telephone calls that bring the most recent diagnostic and therapeutic information on specific neoplastic disease problems.

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WHEN? Monday-Friday, 8:00 a.m. to 7:00 p.m.. CST; Saturday, 8:00 a.m. to 11:00 a.m.. CST.

Dial 1-800-231-6970 for list of specific topics, and procedures:

Write: Southern Medical Association

Cancer Information Center

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Birmingham, Alabama 35205

Ask for *DIAL ACCESS SYSTEM* catalogue.

National Conference on Advances In Cancer Management

AMERICAN CANCER SOCIETY—NATIONAL CANCER INSTITUTE

PART I

TREATMENT AND REHABILITATION

November 25-27, 1974

Waldorf-Astoria Hotel—New York City

PART II

DETECTION AND DIAGNOSIS

May 1-3, 1975

The Denver Hilton—Denver, Colorado

These professional educational conferences will be acceptable for Credit Hours in Category I for the Physician's Recognition Award of the American Medical Association and for Elective Hours by the American Academy of Family Physicians.

University of Miami School of Medicine CME Courses

HUMAN DISEASE RELATED TO FOOD AND CHEMICAL SENSITIVITY

January 29-31, 1975

Americana Hotel, Bal Harbour, Florida

\$150 physicians in practice; \$75 physicians in training;
\$100 Nurses

DYNAMICS OF PROGRESSIVE NEPHROPATHIES—THEORETICAL AND PRACTICAL ASPECTS

January 2-7, 1975

Americana Hotel, Bal Harbour, Florida

Physicians in Practice, \$175; Physicians in Training, \$75
with letter from Chief of Service; Nurses, \$100
23, Category I, AMA Accredited

Pediatric Behavior Management Conference February 21-22, 1975

Topics covered include toilet training and eliminative disorders, emotional and behavioral problems, and behavioral aspects of psychophysiological disorders in childhood. The emphasis will be on a social learning approach and the cooperation of Pediatricians and Behavioral Scientists in treatment.

Write: Division of Continuing Medical Education
University of Miami School of Medicine
P.O. Box 520875 Biscayne Annex
Miami, Fla. 33152

ANSWERS TO THE COOPER REVIEW (from page 931)

1. Severe aortic stenosis imposes a "ceiling" on the cardiac output so that the heart is unable to augment the output in response to increased oxygen demands. The failure of cardiac output to increase as peripheral resistance falls, as when engaging in muscular effort, results in a sudden decrease in cerebral blood flow and loss of consciousness.
2. FALSE. The most frequent cause of hypercalcemia in hospitalized patients in metastatic malignancy. Now that a serum calcium determination is included in most routine hospital admission studies, it has become obvious that hyperparathyroidism is one of the more rare causes of hypercalcemia and patients may be unnecessarily subjected to numerous elaborate studies to detect a nonexistent parathyroid adenoma.

Metastatic breast cancer is the most common malignancy associated with hypercalcemia, apparently caused by a direct effect of the metastases in the bone and possibly caused by osteolytic activity of prostaglandins found in lipid extracts of breast cancer. Other types of malignancy may cause hypercalcemia by the release of ectopic parathormone that may show immunochemical differences from the hormone made by the parathyroid. These immunochemical differences may be demonstrated by differing immunologic activities when tested with antisera to parathormone produced in different animal species. Parathormone-like activity has been demonstrated in the serum, tumor or metastases in cases of carcinoma

Oak Ridge Hospital Ventilatory Problems Workshop

January 25, 1975

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Education Director

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Fifth Annual Aspen Radiology Conference

The Fifth Annual Aspen Radiology Conference will be held March 3-7, 1975, at the Aspen Institute for Humanistic Studies, Aspen, Colorado. The Conference is designed for physicians and scientists interested in diagnostic radiology, nuclear medicine and radiation therapy and will explore the impact of clinical and technological advances on radiologic practice.

The topics for discussions will include advances in bone, vascular, gastrointestinal, and neuroradiology involving a triradiological approach. Each morning will survey the advances in a single radiology subdivision as a refresher course with independent diagnostic, nuclear medicine and therapy sessions. Previewed instructive cases, illustrating these topics, will be presented for open discussion in the afternoons.

Further information may be obtained from Maurice O'Connor, M.D., Conference Director, Division of Radiology, Denver General Hospital, Denver, Colorado 80204.

* * *

of the lung, kidney, colon, ovary, cervix and other organs, but not in breast cancer.

If no other obvious cause of hypercalcemia is found, the question of hyperparathyroidism can most accurately be answered by a determination of the serum parathormone level *in conjunction with* the serum calcium level at the same time. One or the other determination will not provide as good a diagnostic tool as both analyses together. Serum parathormone levels are now available from several reliable reference laboratories. All other studies, such as urine calcium excretion, phosphate clearance studies, calcium infusion tests, etc., lack true specificity and often waste considerable time and effort without providing a clearcut answer.

References:

Gordan, GS: *Ann NY Acad Sc*, 230:181, 1974.

Roof, BS, et al: *Amer J Med*, 50:686, 1971.

3. (d) Polymyositis in a 57-year-old male is frequently a harbinger of an underlying carcinoma. In some series, up to 40% of patients with polymyositis have an occult carcinoma. For this reason a thorough evaluation, including muscle biopsy, search for occult malignancy, etc., should be performed; and this could most efficiently be done at the hospital. If there is no underlying lesion, then a six months' course of high dose corticosteroid therapy, i.e., 60 mg. Prednisone, should be instituted with a good response.

Reference:

Primer in the Rheumatic Diseases, 7th Edition, Pg. 56.

Article Outlines Guidelines for Exam Preparation, Performance

The following study tips were taken from an article in the May issue of *Medical Times*, "Refresher Tips on Preparing for an Examination." These suggestions can be useful to physicians preparing for relicensure and recertification exams; or for any tests they encounter in CME activities.

Written Tests

- 1) Start studying well before the exam. A year ahead is advised.
- 2) Utilize self-assessment exams offered by your medical society, journal, etc.
- 3) Plan your course of study. Devise a schedule and maintain it.
- 4) While reviewing, concentrate on relearning the accepted standards of practice in your specialty.
- 5) When bored, change your subject matter.
- 6) Choose a specific study place with the needed accoutrements: Desk, light, note pads, storage for books and journals and—quiet.
- 7) You may want to use review books of sample tests to:
 1. Learn the exam format and how questions are phrased.
 2. Help you identify weak areas.
- 8) Be sure, however, to recheck your answers with another source; even those in the review book tests. Also, it is not advisable to rely solely on review books as a study guide.
- 9) Sleep well the night before the test. No last-minute studying!
- 10) Try to relax both before and during the examination.

Multiple-Choice Tests

- 1) Read (and re-read after the exam starts) instructions carefully. Misunderstood instructions are the greatest cause of error on these tests.
- 2) Progress through the test at a steady,

rapid pace. If a question stumps you, mark it and return later.

- 3) When done, review your answers, and the mechanics of your test. Especially note those that you marked as puzzling.
- 4) If a question is particularly tough, stay with your initial answer as it is usually the most accurate.

Oral Examinations

Preparation

- 1) Know well your therapeutic philosophy for all sorts of possible complications. If it differs from that of major authorities, know who they are and why it differs. Overall, show your examiners you are aware of what's going on, and can document what you believe.
- 2) Have your material challenged by authoritative colleagues. In controversial areas, become an expert.
- 3) Review all your cases in detail. Later, use this information to better picture patients to your examiners.
- 4) Take a review course and attend as many meetings, seminars, etc. as you can the year before the exam.
- 5) Practice answering questions out loud.

Delivery

- 1) Take a moment to collect your thoughts before you speak.
- 2) Be cool, be confident—but not arrogant—of what you know.
- 3) Don't be afraid to say, "I don't know." One suggestion for action when drawing a blank is to explain how you would go about getting the information the examiner requested.
- 4) Don't try to second-guess the examiner, or volunteer too much information. Tell him how you would handle the patient in question, sticking to the limits of the question.
- 5) Don't go into the exam on the defensive, feeling that "they" are out to flunk you.

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CONTRAINDICATIONS: Hypersensitivity to any of the tetracyclines.

WARNINGS: Tetracycline usage during tooth development (last half of pregnancy to eight years) may cause permanent tooth discoloration (yellow-gray-brown), which is more common during long-term use but has occurred after repeated short-term courses. Enamel hypoplasia has also been reported. **Tetracyclines should not be used in this age group unless other drugs are not likely to be effective or are contraindicated.**

Usage in pregnancy. (See above **WARNINGS** about use during tooth development.) Animal studies indicate that tetracyclines cross the placenta and can be toxic to the developing fetus (often related to retardation of skeletal development). Embryotoxicity has also been noted in animals treated early in pregnancy.

Usage in newborns, infants, and children. (See above **WARNINGS** about use during tooth development.)

All tetracyclines form a stable calcium complex in any bone-forming tissue. A decrease in fibula growth rate observed in prematures given oral tetracycline 25 mg/kg every 6 hours was reversible when drug was discontinued.

Tetracyclines are present in milk of lactating women taking tetracyclines.

To avoid excess systemic accumulation and liver toxicity in patients with impaired renal function, reduce usual total dosage and, if therapy is prolonged, consider serum level determinations of drug. The anti-anabolic action of tetracyclines may increase BUN. While not a problem in normal renal function, in patients with significantly impaired function, higher tetracycline serum levels may lead to azotemia, hyperphosphatemia, and acidosis.

Photosensitivity manifested by exaggerated sunburn reaction has occurred with tetracyclines. Patients apt to be exposed to direct sunlight or ultraviolet light should be so advised, and treatment should be discontinued at first evidence of skin erythema.

PRECAUTIONS: If superinfection occurs due to overgrowth of nonsusceptible organisms, including fungi, discontinue antibiotic and start appropriate therapy.

In venereal disease, when coexistent syphilis is suspected, perform darkfield examination before therapy, and serologically test for syphilis monthly for at least four months.

Tetracyclines have been shown to depress plasma prothrombin activity; patients on anticoagulant therapy may require downward adjustment of their anticoagulant dosage.

In long-term therapy, perform periodic organ system evaluations (including blood, renal, hepatic).

Treat all Group A beta-hemolytic streptococcal infections for at least 10 days.

Since bacteriostatic drugs may interfere with the bactericidal action of penicillin, avoid giving tetracycline with penicillin.

ADVERSE REACTIONS: **Gastrointestinal** (oral and parenteral forms): anorexia, nausea, vomiting, diarrhea, glossitis, dysphagia, enterocolitis, inflammatory lesions (with monilial overgrowth) in the anogenital region.

Skin: maculopapular and erythematous rashes; exfoliative dermatitis (uncommon). Photosensitivity is discussed above (See **WARNINGS**).

Renal toxicity: rise in BUN, apparently dose related (See **WARNINGS**).

Hypersensitivity: urticaria, angioneurotic edema, anaphylaxis, anaphylactoid purpura, pericarditis, exacerbation of systemic lupus erythematosus.

Bulging fontanels, reported in young infants after full therapeutic dosage, have disappeared rapidly when drug was discontinued.

Blood: hemolytic anemia, thrombocytopenia, neutropenia, eosinophilia.

Over prolonged periods, tetracyclines have been reported to produce brown-black microscopic discoloration of thyroid glands; no abnormalities of thyroid function studies are known to occur.

USUAL DOSAGE: Adults—600 mg daily, divided into two or four equally spaced doses. More severe infections: an initial dose of 300 mg followed by 150 mg every six hours or 300 mg every 12 hours. Gonorrhea: In uncomplicated gonorrhea, when penicillin is contraindicated, 'Rondomycin' (methacycline HCl) may be used for treating both males and females in the following clinical dosage schedule: 900 mg initially, followed by 300 mg q.i.d. for a total of 5.4 grams.

For treatment of syphilis, when penicillin is contraindicated, a total of 18 to 24 grams of 'Rondomycin' (methacycline HCl) in equally divided doses over a period of 10-15 days should be given. Close follow-up, including laboratory tests, is recommended.

Eaton Agent pneumonia: 900 mg daily for six days.

Children—3 to 6 mg/lb/day divided into two to four equally spaced doses.

Therapy should be continued for at least 24-48 hours after symptoms and fever have subsided.

Concomitant therapy: Antacids containing aluminum, calcium or magnesium impair absorption and are contraindicated. Food and some dairy products also interfere. Give drug one hour before or two hours after meals. Pediatric oral dosage forms should not be given with milk formulas and should be given at least one hour prior to feeding.

In patients with renal impairment (see **WARNINGS**), total dosage should be decreased by reducing recommended individual doses or by extending time intervals between doses.

In streptococcal infections, a therapeutic dose should be given for at least 10 days.

SUPPLIED: 'Rondomycin' (methacycline HCl): 150 mg and 300 mg capsules; syrup containing 75 mg/5 cc methacycline HCl.

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Sometimes Your Worst Enemies Are Right At Home

Everybody criticizes organized medicine. Newspaper columnists refer to the AMA as one of the most powerful unions, and many less informed people believe that medicine has an inside track to high places in government. The average physician, on the other hand, believes that the bottom figure on the totem pole carries the stethoscope. He also feels that his state and national organizations care little for his problems and are totally impotent in helping him.

The truth actually lies somewhere in between. Medicine faces many bitter antagonists who are ready to oppose any AMA position. By trial and error organized medicine has learned a great deal about how democratic government works. Although medicine truly has no hotline to high places, it does have some very experienced and capable members and employees who have learned to know legislatures and legislators. These persons, having established themselves as honest and hardworking, are often able to present medicine's point of view effectively to law making bodies. By applying time tested methods of rationality and compromise, their efforts have been responsible for much good medical legislation and have prevented the passage of many measures that would have been seriously detrimental to the nation's health.

With this preamble it is in order to recount a story. Recently a bill was introduced into the Pennsylvania Legislature which would have expanded the scope of the practice of optometry in the Commonwealth. It would have given optometrists the right to use local anesthetics, cycloplegics, and mydriatics under certain circumstances. As it happened this was strongly supported by some legislators who had been generally friendly to the interests of the Pennsylvania Medical Society. Through its regular channels the

Society was alerted to the new bill. The undesirable features were recognized, and arrangements were made to watch its progress and take appropriate actions as might become necessary.

Unfortunately, the Pennsylvania Academy of Ophthalmology and Otolaryngology also became aware of the bill about this time. Enraged that such a measure could even have been introduced, its leaders demanded that all-out action be taken to prevent its passage. Telephone calls and correspondence with PMS officers were vitriolic as the society was urged to set aside all other priorities and fight this bill in every possible way. This extreme agitation was even carried to the floor of the Society's House of Delegates. Vehemence and invective convinced the delegates that this matter deserved the support of all physicians. The resultant action directed the Board and legislative representatives on this issue to maintain a stone wall type of defense with no compromise.

A misconception often held by people who are unfamiliar with the democratic process is that any purpose can be gained by those who are sufficiently determined simply by talking loudly and applying power. Such an approach works in military situations if the forces necessary are available. It is not appropriate where votes are required to attain a given end. Votes can be garnered from generally uninterested assemblymen only by promising something in return. Strongly worded statements and personal attacks more often lead to antagonism than to cooperation.

A legislator is influenced by measures which have strong popular support since these will have an influence on whether he is returned to office at the next election. In this case, the ophthalmologists, almost entirely centered in the large cities of our state, were in a poor situation to get popular support since most of the people of the Commonwealth receive their visual care from optometrists. The battle plan forced upon the Pennsylvania Medical Society was to demand a rather unpopular action from the General Assembly with no leverage, neither a carrot nor a stick to attract the necessary votes.

There persists a feeling among many physicians that some features of this bill could have been accepted. The bill's supporters certainly expected to consider compromises, but there was now no choice as to procedure. Members of the legislature were surprised by our unyielding position.

Reprinted from *Pennsylvania Medicine*, July, 1974

George A. Rowland, M.D., Millville, Pa.—Dr. Rowland is a member of the State Society Board of Trustees, chairman of its Finance Committee, and a PMS delegate to the AMA. He is active also in the American Academy of Family Physicians.

The more physicians consider the hemodynamics of lowering blood pressure...

Most physicians now agree on the importance of reducing blood pressure in the hypertensive patient. But high blood pressure exists, of course, only as part of a complete clinical picture. The hemodynamic profile of well-established essential hypertension is characterized by elevated arterial blood pressure, normal cardiac output, and increased total peripheral resistance.

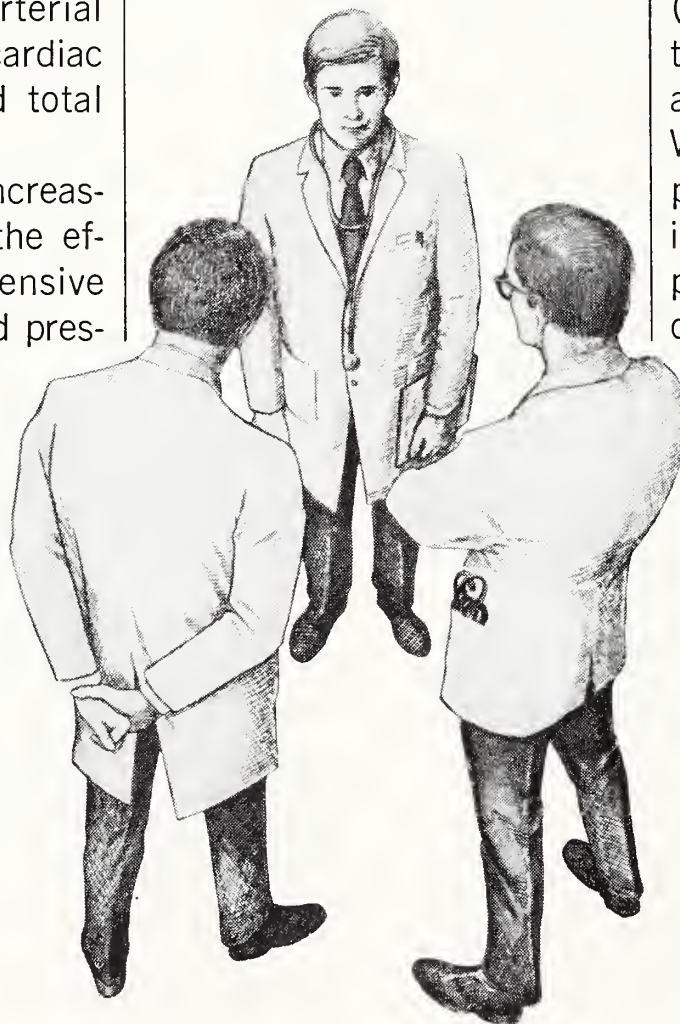
And so, physicians are increasingly concerned with the effects of an antihypertensive agent not only on blood pres-

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Manuscripts must be typewritten on one side of letterweight paper. Either double or triple spacing and wide margins must be provided to facilitate editing which will be legible for the printer. The pages should be numbered and clipped or stapled together, but they should not be placed in a binder.

Bibliographic references should not exceed twenty in number documenting key publications. They should appear at the end of the paper. The bibliographic references must conform to the style used in the American Medical Association publications, as,—Alais, FG: What is Known About it, J. Tennessee M. A., 35:132, 1950.

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Usage in pregnancy. (See above **WARNINGS** about use during tooth development.)

Animal studies indicate that tetracyclines cross the placenta and can be toxic to the developing fetus (often related to retardation of skeletal development). Embryotoxicity has also been noted in animals treated early in pregnancy.

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Typhoid Fever in Medical History

JOHN B. THOMISON, M.D.

This is the first in a series of articles on the study of typhoid fever and its relationship to the conquest of disease.

Study of the history of medicine will show that although one after another the major scourges of past generations have yielded to man's ingenuity, the causative organisms of many of these diseases have proved to be remarkably hardy, and it is their nature to reappear with renewed vigor, often after decades of quiescence. In this category one quickly calls to mind such diseases as malaria, syphilis, cholera, plague, and typhoid fever, whose causative organism has recently developed in Mexico a drug resistant strain, and shows signs of again becoming a major problem.

In this paper we shall consider typhoid fever not from the point of view of the clinician or pathologist, but from that of the medical historian, as an elegant example of how succeeding generations built on the knowledge gained by their predecessors, culminating virtually in the complete conquest of an endemic and epidemic diseases almost without peer as cause of death and economic loss. Though other diseases, particularly plague and cholera, have manifested themselves in a more spectacular fashion, they have come and gone periodically, while typhoid fever has taken its tremendous toll year-in and year-out. We shall see in our study the emergence of a number of major medical concepts, such as infection and contagion, preventive medicine, conferred immunity, and the carrier state. Perhaps the most urgent lesson we need to learn is that only civilization stands between us and a resurgence of typhoid fever.

Early History

All people who are involved in classifying things, diseases or otherwise, are divided into

From the Departments of Pathology, Vanderbilt Medical School and Park View Hospital, Nashville, Tenn.

lumpers and splitters. We tend to start out as lumpers, and as we become more sophisticated, subclassifications begin to develop. As we learn even more, we sometimes find that relumping is to some extent in order. The history of typhoid fever began only about 150 years ago, typhoid having been lumped prior to that time into the continued fevers, and even earlier, into the enteric fevers.

The early history of typhoid fever is lost in a confusion of acute febrile enteric disorders, including sepsis, malaria, tuberculosis, trichiniasis, and especially typhus, all of which were rampant throughout the ancient world. Egypt, where the annual flooding of the Nile left behind deposits of filth covered by swarms of flies, must certainly have known epidemics of typhoid fever.

The word "typhoid" means "like typhus," the disease with which it was most often confused. The word "typhus" is the transliteration of the Greek word *Τιφος*, which originally meant *a cave*, and which came to mean *cloudy* or *hazy*, a term descriptive of the changes in the sensorium of individuals with the enteric ("continuing") fevers of which Hippocrates and Galen wrote. Undoubtedly, many of these cases were typhoid fever, certain of their statements being applicable to no other disease.

The concepts of contagion and infection were poorly understood, or were not considered at all during this period. Though the Greek physicians had a well-developed concept of the natural causes of disease, and even to a degree the transmissibility of some diseases, the natural causes more often than not tended to be thought of as *miasms*, emanations from the earth, or the evil genius of a particular locality. The terms "infectious" and "contagious" were used more or less inter-

TYPHOID/Thomison

changeably to mean transmissible, since there could be no true concept of infection prior to the advent of modern bacteriology in 1880.

The classification of disease along any other than the most rudimentary lines depends upon clinico-pathologic correlation, which in turn depends upon the study of anatomical lesions. Although anatomical dissection was carried out by the Greeks, it was done primarily in animals, and most often for the purpose of augury. The earliest human dissection was performed for the study of anatomy, and although abnormalities were sometimes noted, clinico-pathologic correlation was seldom carried out.



Adrian van den Spieghel (Spighelius), the first to make the clinico-pathological correlation of typhoid fever with gangrenous lesions of Peyer's patches.

The first clinical case of typhoid fever as such was reported in 1624 by Spighelius,* who described the clinical manifestations, and followed

*Adrian van den Spieghel, a Brussels anatomist, who taught at Padua and who was also an accomplished surgeon.



Thomas Willis, the first to attempt the separation of typhoid fever and typhus.

the patient to autopsy, where he described the gangrenous lesions of the Peyer's patches. Five years later, the great English physician Thomas Willis, of London, made the first attempt to separate typhoid fever (*febris putrida*) from typhus (*febris pestilens*). He noted that the latter was much more contagious, that the rash was much more widespread and hemorrhagic, and that whereas in typhus the fever abated suddenly, by crisis, in typhoid it dissipated gradually over a period of a week or two. In 1684 he published a book, "*Practice of Physick*," in which he described both fevers in detail, with differential features, adding that only in the lesser disease (typhoid) were intestinal ulcers and enlarged mesenteric lymph nodes found at autopsy. Boglioli in 1696 described what he referred to a *febris mesenterica*, which is recognizable as typhoid fever, and which he distinguished from typhus.

The Nineteenth Century

The above space represents a hiatus of over 100 years, during which time we find nothing in the literature about typhoid fever, so that in the early part of the 19th century it became neces-

sary to "reinvent the wheel" so to speak, as far as typhoid is concerned. What we find is an awakened interest in the disease on the European continent, beginning with the work of Hildebrand in Germany, who in 1810 distinguished between a severe contagious form of the disease (typhus), and a less severe "nervous fever" (typhoid). The situation was complicated in France in that though typhoid was rampant, typhus did not exist, and typhoid was assumed to be the same as English jail fever, also referred to as ship fever, petechial fever, or spotted fever, which was of course typhus. This also produced problems in England, where typhus had always been predominant. Physicians there could not understand why postmortem examination in these cases only occasionally disclosed the lesions described in such detail by the French physicians.

Typhoid "Unlumped"

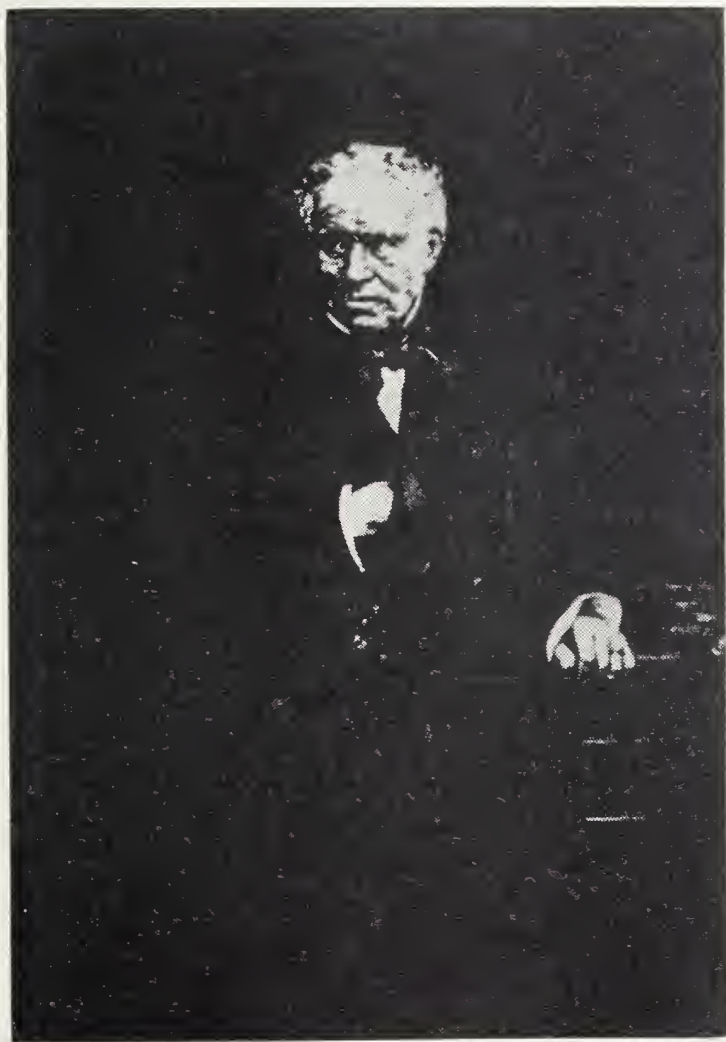
The story of the proper definition of typhoid fever begins in France, and although Prost as

early as 1804 had demonstrated by the study of 200 autopsied cases that typhoid fever was constantly associated with definite intestinal lesions, the name which stands out in this particular part of our story is that of Pierre Bretonneau, a physician of Tours, who demonstrated that the lesion was not primary in the mucous membrane of the intestine, but in the lymphatics. He is probably the first to have made a clear clinco-pathologic correlation of the disease, allowing his students to clearly distinguish this form of enteritis from all others.

We must pause here to learn another lesson from history. Bretonneau was a perfectionist, and although he had made his observations as early as 1813, he refused to publish them because he felt that he had not yet completely worked out the pathogenesis of the disease, and it remained for one of his students, M. Trousseau, to bring his work to public view.

In 1826, Trousseau published a paper concerning a disease which Bretonneau had named *dothinenteritis*. In the introduction he says, "In waiting for this distinguished practitioner to give the final touches to his work, I wish to give a sketch of his labors in order to call the attention of physicians to a disease extremely frequent, but badly studied until the present, and also to assure Dr. Bretonneau the possession of his discovery, which they have already wished to take from him. . . ."

"If dothinenteritis were a disease well known, if it only showed itself but once and then would not appear except at certain periods, or in distant ages, or in very few individuals, the work of Bretonneau would, without doubt, not be of very great interest; but if one visualizes that this disease is just as common and no less murderous than smallpox, measles, and scarlet fever, that few people go to the end of their life without having experienced its attacks, that it enjoys, as well as the cutaneous inflammation which I am going to describe, that it is nothing less than the putrid fever; . . . if one recalls that dothinenteritis rages constantly in Paris and in all of the large cities where the contagious diseases, especially those which do not affect the same individual but once, find always fresh bodies for their attacks, one will conceive of the importance it is for the practitioner to know the symptoms, course, duration and treatment of this disease, and distinguish it with care from others which attack the digestive tract." There then follows a very



Pierre Bretonneau, the first to make a clear clinco-pathological correlation of typhoid. He also advanced the notion of its contagiousness, and of its conferred immunity.

careful day-by-day catalog of the changes occurring in the intestinal tract. He also calls attention to the specific location of the lesions within the lymphoid tissue of the terminal ileum, cecum, and upper colon, recognizing that perforations, when they occur, do so through the center of a lymphoid accumulation.

Trousseau closes his account with the following tribute to Bretonneau: "Without doubt it would have been better to have let M. Bretonneau himself publish his ideas on dothineritis; this physician has traced with more clearness the picture of the changes which follow this important disease. But it is important, both for the glory of my master, and for science, to present a glimpse of the important work to which he has placed his hand. This conscientious practitioner, who believes it would be false to the principles of his profession if he would establish a law which was not for him the expression of the entire truth, carries on each day new researches, adds to them, compares them, and enriches them with new facts and waits before submitting his work to the judgment of the public, until he himself judges it worthy of being presented."

Since he had never seen a case of typhus, Bretonneau considered the typhoid in France to be identical with the typhus found in England. He thought the disease to be due to a poison, though he considered it to be transmissible, and called attention to the permanent immunity which it conferred. He established that there was no correlation between the severity of the clinical disease and the lesions within the intestinal tract. Since others, particularly Chomel and his pupil Louis, were working along these same lines in Paris, it is unlikely that progress would have been significantly impeded without Bretonneau's observations, but it would have been unfortunate for the work of this brilliant observer to have gone unnoted. The lesson to be learned is that significant observations should be promptly communicated, though the distinction should be made between this and the precipitate publication of hastily derived data and poorly conceived theories.

Two other and probably even more significant contributions were made by Bretonneau. Although there were indications of contagiousness from rural outbreaks of typhoid fever, it was generally held by urban physicians that the disease

was not transmissible. In an address before l'Académie royale de Médecine in 1829, Bretonneau attacked this notion, opening with the statement "Typhoid fever is contagious. It is contagious in Paris, and nowhere is it more often contagious. Often imported into a village, one sees it spread from the patient to some of the attendants. It then spreads from the affected family to another, and one generally observes that it is not to the nearest family but to those whose contacts have been most intimate and frequent." His paper ably answered contrary arguments by the use of unassailable case reports.

Bretonneau's third contribution was his insistence that an attack of typhoid fever produced permanent immunity from subsequent attacks, writing "that it enjoys the singular character of affecting an individual only once during his life."

We must now turn for a moment to the American continent, to an unfortunately little noted work by Nathan Smith, Professor of Surgery and Theory and Practice of Physick at Yale. This study, published in 1824, though entitled *A Practical Essay on Typhous Fever*, ("Typhous"—or typhoid—as opposed to "typhus") is of importance because it is the earliest account of typhoid fever in America, and because Smith preceded Bretonneau in recognizing the contagious nature of the disease, clearly establishing its transmissibility by water. He wrote that "during the first twenty-five years since I first attended patients in this disease, and in that time I have visited many hundreds and have witnessed its prevalence several times in the same village, I have never known or heard of its recurrence in the same person. . . . That the typhus fever (typhoid fever) is contagious is a fact so evident to those who have seen much of the disease and who have paid attention to the subject that I should have spared myself the trouble of saying anything with regard to it, did I not know that there are some physicians in this country who still dispute the point; one which I think can be as fully demonstrated as that the measles, small-pox and other diseases universally allowed to be contagious, are so." His assertions are documented by unassailable clinical evidence.

Returning to France, we must now consider the great physician and teacher, Pierre Louis, who was a close friend of Bretonneau, and who in 1825 had done the definitive work on tuberculosis, introducing the statistical method in the study of



Pierre Louis, father of the statistical method, who introduced the term "typhoid fever."

disease. In 1829 he published his second work, the report of his studies on the anatomic pathology and therapy of various forms of gastroenteritis, including the putrid fevers. In it he introduced the term "typhoid fever," which he clearly separated from the other enteric fevers. While others had prepared the way, Louis must receive the credit for the first complete analysis of the disease. He frankly admitted that the cause of typhoid remained unknown.

Applying his statistical methods to typhoid fever, Louis wrote, "I collected, from 1822 to 1827, . . . 138 observations of typhoid fever, of which 50 pertained to individuals who died. I have analyzed them all in order to find out which among the numerous lesions were proper to the typhoid affection, and I have compared them to alterations found as a consequence of other acute disorders in 83 subjects, whose histories I had also collected. In brief, I analyzed the visceral alterations in 133 subjects and the symptoms in nearly 900. I have discarded from the material the facts which seem to lack exactness, and when I drew my conclusions from the rest I had ever in mind this thought of the author of *Emile*: 'I know that truth lies in things and

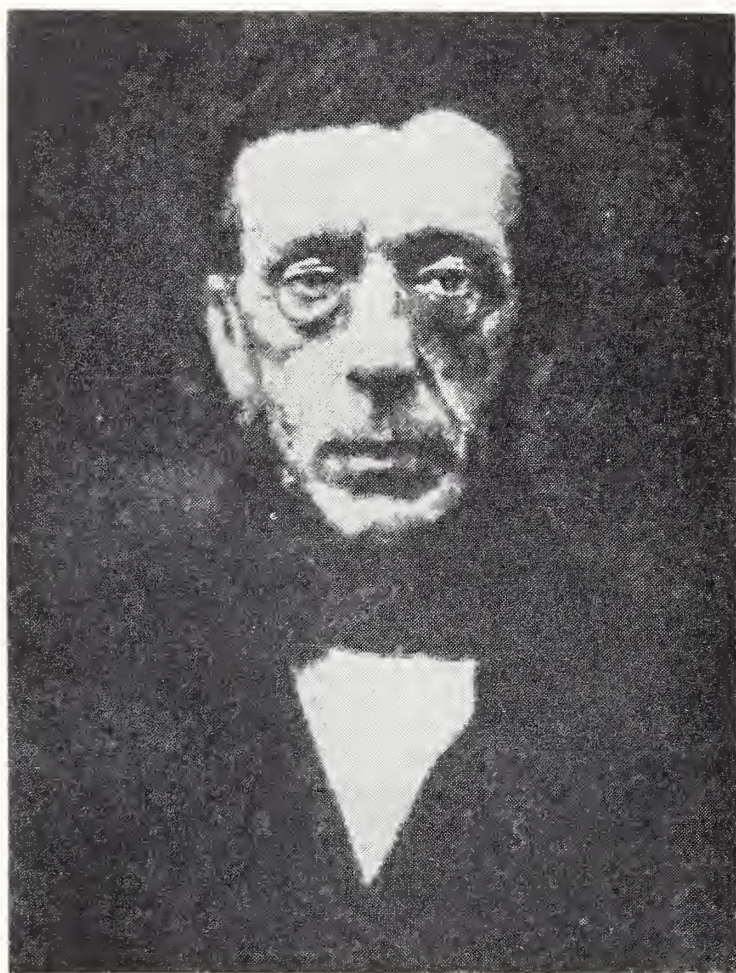
not in the mind which judges them, and the less of myself I put into the conclusions which I draw the more certain I am of approaching the truth.' " Louis' statistics confirmed the impression current at the time that most of the cases occurred in young people who recently came to Paris. He made no comment on the question of contagion, but showed that typhoid fever was a much more severe disease than it subsequently became, with a general mortality rate of nearly 30%.

We tend sometimes to forget how recent are the beginnings of modern medicine, and how long the mystic traditions of the ancients influenced medicine. Louis was one of the first to deliberately break with these traditions. He wrote: "It is not inappropriate to remark at this point that one cannot depend upon the authority of the ancients in questions relative to the seats of disease, since these questions can be cleared up only by comparison of symptoms with lesions, and the ancients were ignorant of pathological anatomy. Neither is it true, as is often said, that facts do not grow old. Without doubt some well-observed facts do not grow old and cannot grow old, but the immense majority have grown old and those which we gather today will grow old in their turn. For they carry more or less the imprint of time, of its methods, more exact than those of previous periods and less rigorous than those which will follow us. It behooves those who devote themselves to observation to be impressed by this truth and to realize that the best work is only good in relation to its time and that it awaits another more exact and more complete." This incidentally is another very important lesson to be learned from our study of history.

Although Louis himself, being largely ignorant of typhus, did not distinguish between it and typhoid fever, he greatly influenced three Americans who at that time were studying in Paris: Oliver Wendell Holmes, George Shattuck, and William W. Gerhard. To Gerhard, in Philadelphia, in 1837, goes the credit for finally and completely separating the two diseases, on the basis of his experience in England, France, and Philadelphia. Again we must keep in mind that the groundwork had been laid previously, particularly by Hildebrand, and even as far back as 1782 by John Huxham of London, who was one of the first to differentiate the two diseases, under the names of "slow nervous fever" and "putrid malignant fever," which were typhus and typhoid fevers. His accounts, however, were largely unintelligible and contained nothing definitive. In

TYPHOID/Thomison

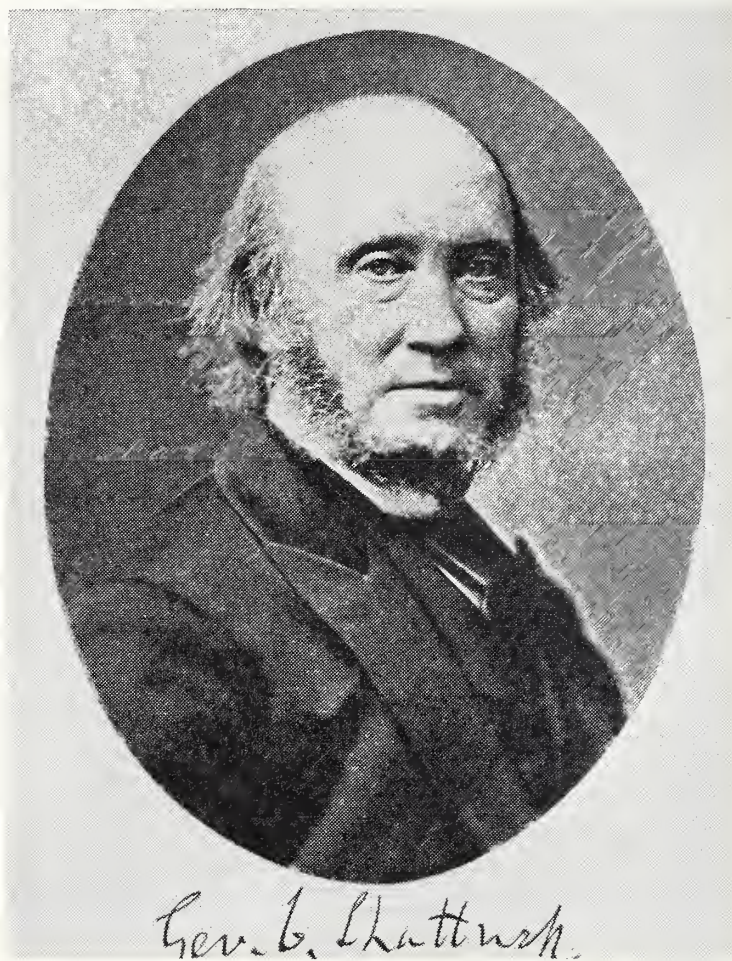
1836, Lombard, of Geneva, described both typhoid and typhus in England, noting that typhoid in England was the same as that disease in France. In a letter to a Dublin physician, he writes "You have two different fevers, one highly contagious, which I may call the Irish typhus, and in which the cephalic symptoms predominate, to the exclusion of abdominal alterations; the other which is sporadic, and most likely not so infectious, and in which the abdominal symptoms are more prominent. . . ."



William W. Gerhard, to whom goes credit for finally separating typhoid fever and typhus.

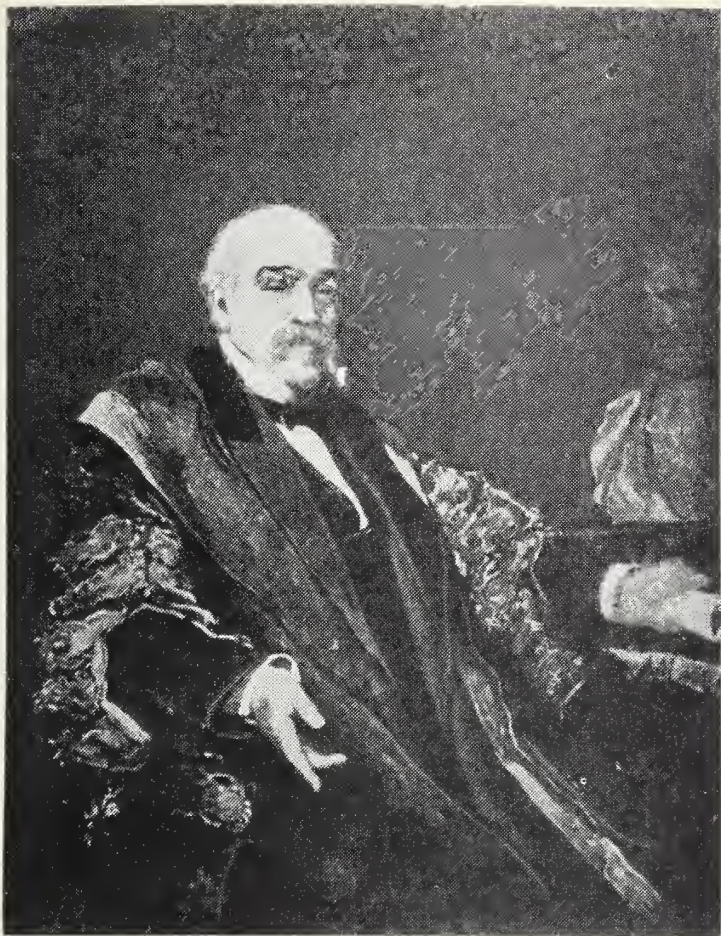
In the spring and summer of 1836, during a typhus epidemic in Philadelphia, Gerhard amassed a series of cases of typhus and typhoid in the Pennsylvania Hospital which gave him the opportunity to compare the two diseases. He wrote "The anatomical lesions were as different as the pustules of smallpox are unlike the eruptions of measles. . . . When the disease is completely formed, the characters on which the distinctions between the two forms of fever rest are: 1. the suffusion of the eyes which occurs in every case

or nearly every case of typhus fever, with the dusky, red aspect of countenance; 2. the extreme stupor and inactivity of the mind even when positive delirium does not exist. 3. We also observed in typhus no constant abdominal symptoms. . . . 4. If to these symptoms be added a peculiar eruption of petechiae, which are scarcely ever absent in whites, there remains hardly a possibility of error. In typhoid fever we consider as distinctive characters the prostration, the somnolence, the slow development of nervous symptoms, which are not so strongly marked as in typhus. The abdominal symptoms are tympanites, pain in the abdomen and diarrhea. The sibilant rhoncus is heard in the chest; and lastly there is an eruption of rose colored papulae and sudamina upon the skin." His conclusions were: 1. that typhus in Philadelphia was the same as typhus, or jail fever in England, and was very contagious; and 2, that the enteric fever of France and England (typhoid fever) was another disease.



George Shattuck, who in Boston and England confirmed the work of Gerhard.

George Shattuck of Boston studied both diseases in England and France, and found both to be present in London, confirming the work of



William Jenner, physician to Victoria and Albert, who found that typhoid and typhus did not occur concurrently, and offered no cross immunity.

Gerhard. William Jenner, physician to Queen Victoria and Albert, her prince consort, studied cases admitted to the London Fever Hospital from 1849 to 1851 and found that they did not concur concurrently, and that there was no cross immunity.

An interesting sidelight to this is that Prince Albert contracted typhoid fever in 1861 while performing his last public service, the redrafting of a state paper in a manner that may have averted a war between Britain and the United States, following the removal by a United States warship of two Confederate officials from a British ship. In spite of the skillful ministrations of Jenner, Albert died, following which Queen Victoria suffered an emotional collapse, and made no public appearance for three years. Finally, after five years, Benjamin Disraeli, Lord Beaconsfield, the Prime Minister, persuaded her to return to public life, but the experience affected her outlook, and was largely responsible for the stern, sedate style which we associate with the Victorian period.

This study of Typhoid Fever and Medical History will be continued in a subsequent issue of the JOURNAL.

* * *

Why Not . . .

(Continued from page 1003)

times in one of the Agency's 21 training centers located over the State.

The Vocational Rehabilitation Agency stands ready to assist physicians in the rehabilitation of the handicapped. The Agency welcomes referrals from physicians—not only those who need medical services but also those whose need is for training or some other service available through the rehabilitation Agency.

There are Field Offices located in Athens,

Arlington, Bolivar, Chattanooga, Clarksville, Cleveland, Clinton, Columbia, Cookeville, Dyersburg, Fayetteville, Franklin, Gallatin, Greeneville, Harriman, Hohenwald, Jackson, Johnson City, Kingsport, Knoxville, Lawrenceburg, McMinnville, Memphis, Morristown, Nashville, Paris, Savannah, Smyrna, and Winchester.

To make a referral or to secure more information, the physician need only contact the Vocational Rehabilitation office in his locality.

The Vocational Counselors are most anxious to be of service to your handicapped patients. Why not give them a try?

The False Positive Bone Scan

Radioisotope scanning of the bony skeleton with ^{99m}Tc tin complexes of phosphorous compounds (i.e.— ^{99m}Tc polyphosphate, ^{99m}Tc diphosphonate and ^{99m}Tc pyrophosphate) is the most effective method for the detection of cancer in bone. Its effectiveness stems from the fact that a mere 10 percent increase in the focal deposition of technetium phosphorus compounds in the hydroxy apatite crystal of bone (believed to be due to a 10 percent increase in osteoblastic activity) is adequate to produce a positive bone scan. By contrast, at least a 50 percent increase in focal bone density is needed before an abnormality is appreciated by X-ray. Because of this great difference in sensitivity, bony lesions appear sooner on the bone scan than on the radiologic skeletal survey. Consequently, most of the more sophisticated medical school hospitals have abandoned the radiologic skeletal survey for the early detection of cancer in bone and are now using the bone scan as the method of choice in the early detection of cancer in bone.

As with any test, the greater the sensitivity of the test the less its specificity. The bone scan is no exception to this generalization.

Case 1: This 71-year-old female presented with weight loss and abdominal pain. Her chest X-ray, IVP, GI series and SMA 12 were all within normal limits. The bone scan (Fig. 1) showed abnormal isotope localization only in the region of the left mandible. An X-ray of this

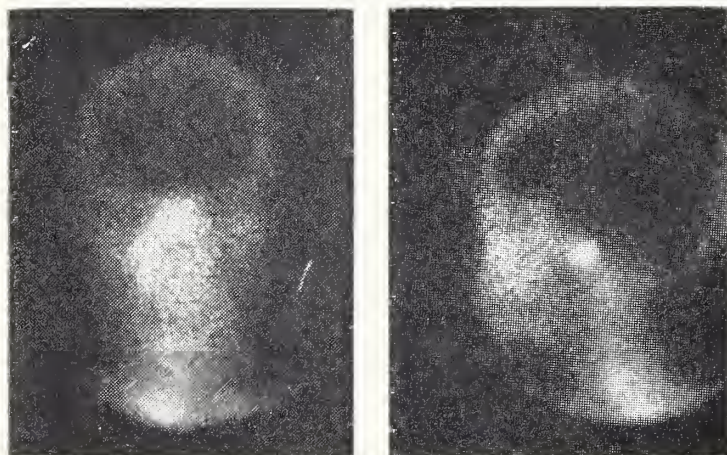


FIG. 1

From the Department of Nuclear Medicine, Park View Hospital, Nashville, Tenn. 37203.

area (Fig. 2) revealed significant degenerative change in the left temporal-mandibular joint.

Case 2: This 54-year-old female presented with low back pain. An SMA 12 revealed a slightly elevated serum calcium and alkaline phosphatase. Chest X-ray and GI X-rays were normal. The bone scan showed abnormal isotope localization in the L-2 vertebra and in the left mandible (Fig. 3). X-rays of the left mandible (Fig. 4) showed a cyst, thought to represent an old inflammatory process.



FIG. 2 (a) Normal right temporal-mandibular joint (left)



(b) Degenerative left temporal-mandibular joint (right)

Not every condition that produces increased osteoblastic activity and in turn causes focal deposition of technetium phosphorous compounds is

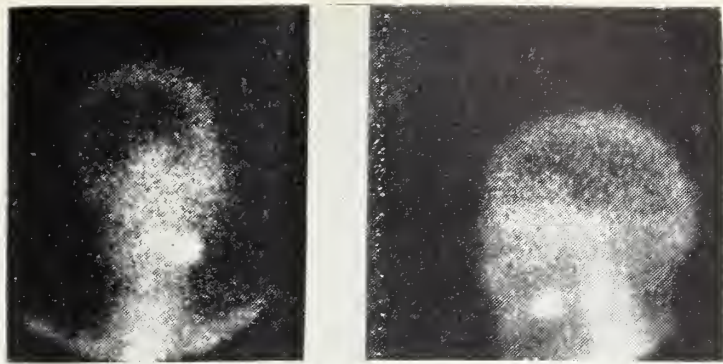


FIG. 3

due to an underlying cancer. While cancer is the most common cause of increased osteoblastic activity and positive bone scans, fractures due to recent trauma or due to marked osteoporosis may also lead to a positive bone scan, sometimes persisting for as long as a year. Degeneration of a joint (as in Case 1), abscess formation (as in Case 2), arthritis, bursitis, Paget's disease, and acute ligamentous tears may all produce a positive bone scan. An X-ray of the area often will reveal the cause of the positive bone scan and will rule out cancer. In those cases where the spot X-ray of the lesion detected by the positive bone scan

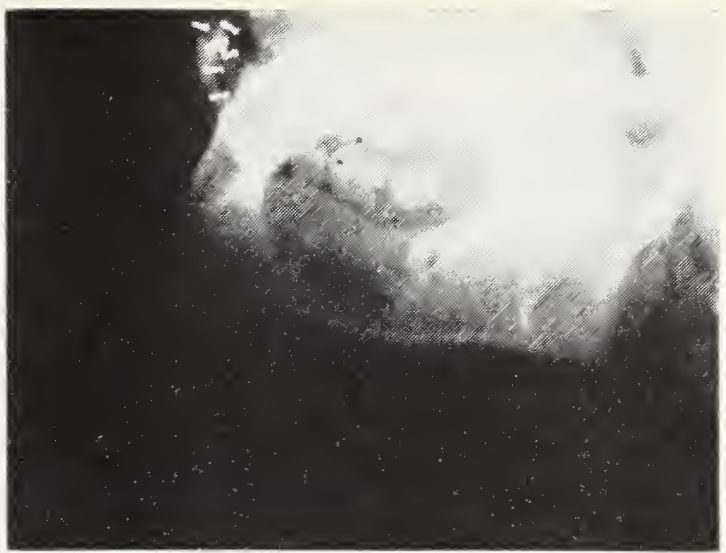


FIG. 4

does not rule out cancer, then clinical judgment based on the history, physical examination, serum calcium and alkaline phosphatase, and the presence of multiple lesions rather than a single lesion usually will lead to a rational course of action without biopsy. On rare occasions, only a bone biopsy will settle the issue.

ROBERT L. BELL, M.D.
Director

* * *

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Available through all drug wholesalers.

Nitroprusside

Sodium nitroprusside (Nipride,[®] Roche Laboratories) has been released for use in effecting the immediate reduction of blood pressure of patients in hypertensive crisis. It is a highly potent and effective drug for use in the hypertensive emergency.

Sodium nitroprusside (sodium nitroferrocyanide dihydrate) is unrelated to other hypotensive agents currently in use. The active moiety is the free nitroprusside radical which acts upon the smooth muscle of blood vessels to cause vasodilatation with subsequent blood pressure reduction and venous pooling. The compound is active only when administered intravenously. Onset of action is very rapid following administration, and once the drug is stopped, the blood pressure returns to control levels after five or ten minutes. Consequently, the drug must be administered by constant intravenous infusion. No medications have been demonstrated to block the action of nitroprusside. Most other antihypertensive medications potentiate its effect.

Clinical studies have demonstrated sodium nitroprusside to be effective in rapidly lowering the blood pressure of patients with malignant hypertension and hypertensive encephalopathy. It has been effective in hypertensive patients with left ventricular failure, aortic dissection, and intracerebral hemorrhage. Hypertension of various etiologies—essential, renovascular, pheochromocytoma, and primary renal disease—have shown good response to this agent. Frequently, sodium nitroprusside has lowered the blood pressure when other medications have failed to do so. The dose necessary to achieve blood pressure reduction has varied from 25 to 800 micrograms per minute. Therapy has been maintained as long as 14 days with only rare instances of tolerance or tachyphylaxis.

The hemodynamic effects of sodium nitroprusside administered to hypertensive patients without heart failure were studied by Schlant, et al and Bhatia and Frolich. They found that blood pressure reduction was accompanied by a small decrease in cardiac index, a somewhat greater in-

crease in heart rate and a decrease in calculated systemic resistance. Left ventricular ejection rate was diminished, possibly secondary to reduced cardiac filling. Franciosa, et al administered low doses of nitroprusside to patients with acute myocardial infarction and found that cardiac output rose in patients with clinical signs of left ventricular failure. Myocardial oxygen consumption as reflected by the product of heart rate, mean arterial pressure and systolic ejection time was reduced. Similarly, nitroprusside administered to patients with refractory heart failure in doses to achieve small drops in mean arterial pressure increased cardiac output with concomitant decreases in left ventricular filling pressure and heart rate. These studies indicate that hypotension induced by nitroprusside is not accompanied by cardiac stimulation; in the failing heart, myocardial performance is improved while myocardial oxygen consumption decreases. Because of these properties nitroprusside is a preferred agent for the treatment of hypertension complicated by acute left ventricular failure or myocardial infarction and for acute aortic dissection in hypertensive patients. It is contraindicated for therapy of hypertension secondary to increased cardiac output, such as arteriovenous fistula.

Nitroprusside is metabolized to cyanogen (-CN) and then to thiocyanate (-SCN) which is partially excreted in the urine. Thiocyanate is an inhibitor of thyroidal iodine trapping and may accumulate in patients with renal insufficiency or during prolonged administration of nitroprusside. One case of reversible hypothyroidism secondary to thiocyanate accumulation developed in a patient with renal insufficiency who received a prolonged (21 day) infusion. Daily thiocyanate blood levels should be measured in patients with renal impairment and in patients who receive nitroprusside for longer than 48 hours. Therapy should be discontinued if thiocyanate levels rise above 10 mg/100 ml of blood.

Other side effects associated with the administration of sodium nitroprusside include nausea, diaphoresis, restlessness, headache, dizziness, palpitations, retrosternal discomfort and chest pain. These usually occur with too rapid a de-

(Continued on page 1002)

From the Hypertension Center, Vanderbilt University Hospital, Nashville, Tenn. 37232.

Infant Diarrhea

Clinical Presentation: This four-month-old NM who had been suffering with diarrhea for one week became irritable 24 hours prior to admission. A mass was felt in the upper abdomen. Please examine FIG. 1 and pick the most correct diagnosis:

1. Intussusception
2. Volvulus
3. Obstructing neoplasm of colon
4. Meconium plug

Discussion

Note that following retrograde filling of the colon by barium, there is obstruction to flow in the proximal transverse colon. The head of barium forms a concave defect with widening of the lumen at the point of obstruction. With continued hydrostatic pressure produced by the flow of barium, a spiral pattern resembling a bedspring coil appears. This represents barium puddling between the compressed lumen of the head and sleeve of a telescoped segment of colon. Note that the site of obstruction shifts proximally toward the ileocecal valve as the flow of barium reduces the intussusception. When barium refluxed into the terminal ileum, reduction of the intussusception was complete. A long segment of terminal ileum was then filled in search of an ileoileal intussusception, as is the usual procedure to complete the examination.

Intussusception is the invagination or telescoping of a segment of intestine into a contiguous distal segment and is thought by most authors to be the most common cause of acquired intestinal obstruction in children. The bowel almost invariably intussuscepts at or near the ileocecal junction and is either ileocolic or ileoileocolic in type. Clinically most patients are well nourished and obese infants and in most series there has been a ratio of 3:1 male to female. Many etiologies have been advanced as theoretical causes of intussusception: polyps, lymphoid hyperplasia, appendiceal impactions, large fecaliths, Meckel's Diverticulum, and tumor such as reticulum cell sarcoma, lymphangiomas, lipomas (note that most of these tumors are primarily intramural tumors). In most cases, however, the

etiology cannot be definitely established. Most cases then are idiopathic.

Intussusception should be suspected when the classical signs of sudden onset of paroxysmal pain, vomiting and a palpable abdominal mass are found. Bloody stools are a prominent part of the picture but occur late in the course. Diagnosis can be confirmed by barium enema and in uncomplicated cases (not associated with gangrene of the intestine or peritonitis) the hydrostatic pressure exerted on the intussusception by the column of barium may actually reduce it thus obviating further treatment. One note of caution: the barium enema bag should never be elevated above normal levels in an attempt to produce excessive hydrostatic pressure to reduce an intussusception that will not reduce with the bag at the normal level. This maneuver may perforate the bowel.

If physical examination suggests perforation, gangrenous or necrotic bowel or peritonitis, a barium colon examination should not be done because of danger of perforation of the colon and spillage of barium into the peritoneum, which can be fatal.

Our case demonstrates (Fig. 1) the classical



FIG. 1

From the University of Tennessee, Center for the Health Sciences, Department of Radiology, 865 Jefferson, Memphis, Tennessee 38163.



FIG. 2

coiled spring appearance located at mid-transverse colon and (Fig. 2) shows complete reduction with reflux into a long segment of ileum. The bowel showed no twist or beaking thus excluding volvulus. No mass lesion was present so the diagnosis of neoplasm may be excluded and the patient was too old for the diagnosis of meconium plug syndrome.

References

1. Ling, J: Intussusception in Infants and Children (with emphasis on recognitions of complications). *Radiology*, 62:505, 1954.
2. Benson, CD, et al: Intussusception in Infants and Childhood, *Arch Surg*, 86:745, 1963.
3. Girdany, BR, et al: Roentgenologic Aspects of Hydrostatic Reduction of Ileocolic Intussusceptions. *Amer Jour Roentgenol*, 82:245, 1959.
4. Caffey, J: *Pediatric X-Ray Diagnosis*. Year Book Medical Publishers, Chicago, Illinois, 1970.
5. Middlemiss, JH: Intussusception in Infants and Childhood: Radiographic Appearance in Plain Radiographs. *Brit J Radiol*, 28:257, 1955.

J. K. HITCHMAN, M.D.
S. L. GAMMILL, M.D.

* * *

Hypertension . . .

(Continued from page 1000)

crease in the blood pressure and subside when the dose of nitroprusside is decreased.

Patients who receive nitroprusside should be treated in an intensive care unit where blood pressure can be monitored frequently, every five or ten minutes. The drug should be administered by constant infusion pump. Because nitroprusside in solution is light sensitive and unstable, the solution must be protected from the light and changed frequently. Details of how to prepare and administer the drug are outlined in the package insert. If long term antihypertensive therapy is anticipated, then oral therapy with other antihypertensive agents should be initiated as early as possible and the dose of nitroprusside reduced as indicated.

Summary: Sodium nitroprusside is an effective agent for the rapid lowering of blood pressure in patients in hypertensive crisis. Its hypotensive action is not accompanied by cardiac stimulation. It is ideal for the therapy of hypertension complicated by acute myocardial infarction or acute left ventricular failure and for acute aortic dis-

section in hypertensive patients. It must be administered by constant intravenous infusion—preferably by infusion pump—in an intensive care unit where blood pressure can be frequently monitored.

DAVID M. KORNHAUSER, M.D.
ALAN NIES, M.D.

References

1. Bhatia, SK, and Frolich, ED: Hemodynamic comparison of agents useful in hypertensive emergencies. *Amer Heart J*, 85:367-373, 1973.
2. Franciosa, JA, et al: Improved left ventricular function during nitroprusside infusion in acute myocardial infarction. *Lancet*, 1:650-654, 1972.
3. Gifford, RW: Hypertensive emergencies and their treatment. *Med Clin North Amer*, 45:441-452, 1961.
4. Guiha, H, et al: Treatment of refractory heart failure with infusion of nitroprusside. *N Eng J Med*, 291:587-592, 1974.
5. Page, IH, et al: Cardiovascular actions of sodium nitroprusside in animals and hypertensive patients. *Circulation* 11:188-198, 1955.
6. Roche Laboratories: Nipride Information Booklet, 1974.
7. Schlant, RC, Tsagaris, TS, and Robertson, RJ: Studies on the acute cardiovascular effects of intravenous sodium nitroprusside. *Amer J Cardiol*, 9:51-59, 1962.
8. Tuzel, IH: Sodium nitroprusside: A review of its clinical effectiveness as a hypotensive agent. *J. Clin Pharm*, 14:491, 1974.

Why Not Give Vocational Rehabilitation a Try

JAMES C. GARDNER, M.D.*

Vocational Rehabilitation is a public Agency, financed by State-Federal funds, whose mission is to habilitate or rehabilitate disabled men and women into productive employment. It is not an Agency for the treatment of acute illnesses or injuries which would temporarily prevent a person from doing his or her usual daily work.

Eligibility Requirements

To be eligible for Vocational Rehabilitation services the individual must have a physical or mental disability; the disability must constitute a handicap to employment; and there must be a reasonable expectation that the provision of services will benefit the individual in terms of employability.

In order to establish the presence of a physical or mental disability, a preliminary evaluation must be done. A general medical examination is required in all cases and one or more specialty examinations are required in many cases.

Further evaluation such as psychological, educational, vocational, social, etc., may be required in order to determine whether there is a reasonable expectation the individual can benefit from Vocational Rehabilitation services.

Planning With the Individual

Once it has been determined that the client is eligible for services, a vocational objective must be developed with the individual. The objective is based upon data secured during the diagnostic study, the client's assets and liabilities, the client's limitations and potential, and the client's desires in terms of a vocation.

After an objective is decided upon, the client and the Vocational Counselor must plan together to determine the services that are needed in order to reach the objective. Each rehabilitation plan is individualized to meet the needs of the particular client. Services may range from corrective surgery which will eliminate the disability, to care in a comprehensive rehabilitation center, to college training, depending upon the needs and potential of the individual.

* Chairman, Committee on Rehabilitation, Tennessee Medical Association.

Services Available

The Division of Vocational Rehabilitation has the latitude to provide any or all of the following services to handicapped individuals: Diagnostic and related services; counseling and guidance; physical and mental restoration; vocational and other training services; maintenance; transportation; interpreter services for the deaf; reader services for the blind; placement and followup; post-employment services; occupational licenses, tools, and equipment; and other goods and services which can reasonably be expected to benefit the individual in terms of employability.

Physical and mental restoration services include medical, surgical and psychiatric treatment; Dentistry; Nursing service; hospitalization; convalescent or nursing home care; drugs and supplies; prosthetic, orthotic, or other assistive devices; eyeglasses and visual services; physical and occupational therapy; speech or hearing therapy; psychological services; and other medical or medically related rehabilitation services.

Some of the services such as physical and mental restoration, maintenance, and placement equipment are based upon the economic need of the individual. Other services such as diagnostic, tuition for training, counseling and guidance are not based upon the individual's economic need.

When services are completed the Vocational Counselor assists the client in becoming suitably employed. He continues to make periodic follow-ups with the client and his employer to be sure that the employment relationship is satisfactory to all concerned.

Although physical restoration is only one phase of the Vocational Rehabilitation process, it is often a very important phase. Many times a vocational handicap can be eliminated by a medical or surgical treatment service.

In other situations the handicapped individual may need training in personal readjustment which is extremely important in a previously healthy young person, now confined to a wheel chair. Such adjustment services are provided by the Vocational Rehabilitation Agency, sometimes in a Comprehensive rehabilitation center and some-

(Continued on page 997)



Rights of Patients/Residents in Mental Health Facilities

The United States Constitution was written in an effort to limit governmental infringement on individual rights. The First Amendment of the United States Constitution forbids any encroachment in the right of the exercise of religion, speech, assembly, or petition, while Amendment Fourteen states that no person may be deprived of life, liberty or property without due process of law.

How does this affect a patient/resident in one of Tennessee's mental health facilities, whether admitted voluntarily or by judicial order? A criminal loses many of his civil rights while being incarcerated because he has been allowed "due process of law" and yet held to have committed a crime against society. This is justification for the necessary deprivation of certain civil rights such as liberty. But the patient/resident is not a criminal, even though he has been ordered to be hospitalized by a court. There is a definite distinction. No person can lose his liberty or civil rights because of a mental disability. In Accordance with Tennessee Code Annotated Section 33-303, an individual with a mental disability has a right to liberty.

However, the exercise of rights can be abridged if the state can show an excessive paramount interest to that of the individual. In other words, a mentally disabled individual may lose the right to liberty if it can be shown to a court of competent jurisdiction that because of such disability an individual has become dangerous to himself or others. This is the self-preservation of society principle that is promulgated by the theory of the state's right to use police power. However, even though liberty is being curtailed, an individual still retains his civil rights unless adjudicated legally incompetent by a court.

What are civil rights? These are the rights of every adult, such as the right to own and sell property, to enter into contracts, to vote, to marry, to enter into legal instruments, to apply for driver's license, and to handle one's personal funds and effects.

None of these rights can be denied by the mere fact of hospitalization. Yet these rights

can be lost if a court of competent jurisdiction, usually the county court, adjudicates the individual to be incompetent and unable to properly exercise his civil rights. The procedure of the hearing is set out in Tennessee Code Annotated Section 33-313. This hearing is to be held separate and distinct from the issue of mental illness or mental retardation. An incompetent individual is restored to competency and to full civil rights upon a court order of restoration which occurs after a new court hearing and finding of competency, or where the superintendent of the hospital from which the patient/resident is discharged certifies that the released patient/resident is competent. The loss of competency is a loss of civil rights and a matter that is allegedly in the best interests of the patient/resident in the sense that the State is acting to protect the individual.

There are other rights beyond civil rights. A patient/resident in a mental health facility has the right to be there without notoriety. The fact that the patient/resident is receiving services is to remain confidential and any infraction is criminal, subject to the exceptions of consent by the patient/resident or upon court subpoena.

Communication is a right. Visitors can be received and telephone calls made during regular hours. Mail cannot be censored or limited unless a licensed physician orders otherwise in writing because such action is deemed by him to be necessary for the medical welfare of the patient/resident.

All patients/residents have a protected right to nutritional meals and regular necessary sleep. The right to attend religious services of the patient's/resident's choice, and to not be coerced to attending against his will is a protected right of the patient. Patients/residents are allowed their own clothes and have a right to be free from search without cause of their personal possessions. No psychosurgery, insulin shock therapy, or stripping of patients/residents is allowed. Seclusion or restraints are to be used only when the patient/resident becomes dangerous to himself or others and there exists no lesser restrictive alternative.

There exists the right to medical treatment as is deemed necessary for the patient's/resident's best welfare. However, there is the respected right of the patient/resident to refuse such treatment.

No patient/resident can be compelled to work without being paid in accordance with the applicable sections of the Fair Labor Standards

Act. These rights are not subject to involution. In essence, a patient should have the right to exercise his freedom as if he were not a patient/resident in a mental health facility, though at times the rights of the facility and its employees must be balanced to form a synthetic principle or compromise.

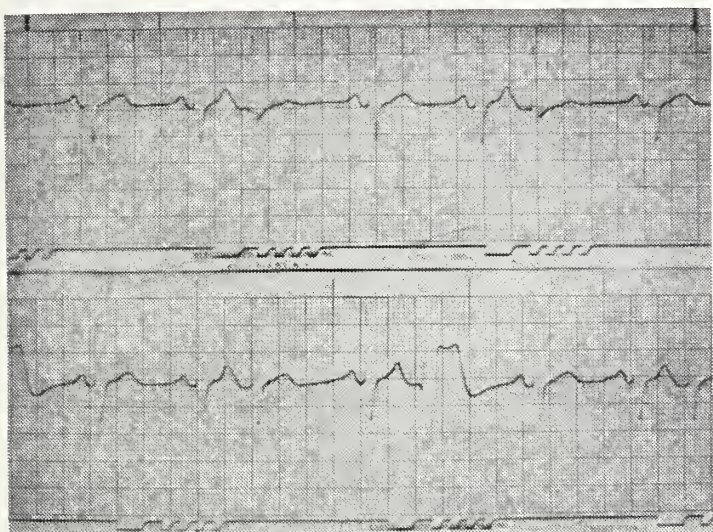
G. WHITNEY KEMPER

* * *

TMA EKG of the month

History

A 47-year-old woman with history of severe, substernal pain of two hours duration was admitted to the



Discussion

The electrocardiogram shows a basically sinus rhythm at a rate of 75/minute. There are, however, frequent premature contractions. The premature beats are noted to have two configurations. It is noted that the premature beats occur in a constant coupling interval of .22 seconds. The premature beat which is of normal configuration is not followed by a compensatory pause. Scrutiny of the T wave preceding this premature beat discloses that it is peaked and considerably taller than the T waves of beats which are not followed by premature complexes. We can infer,

From the Department of Cardiology, St. Thomas Hospital, Nashville, Tenn.

coronary care unit of St. Thomas Hospital after her electrocardiogram showed q waves in leads II, III and AVF with ST segment elevation and T inversion in these leads. Over the next 24 hours her CPK rose to 450 units with elevation of SGOT to 215 and the LDH to 360. The diagnosis was acute inferior wall myocardial infarction. The following electrocardiogram was obtained 18 hours after admission when she was noted to have an irregular rhythm.

therefore, that a P wave is superimposed upon the T complex causing this abnormality of configuration. These beats are nonaberrated and not followed by a compensatory pause and therefore appear to be typical premature atrial contractions. The other complexes, however, are aberrated although they have a identical coupling interval. These might initially be mistaken for premature ventricular contractions. Closer observation of the tracing, however, discloses that these beats also are preceded by P waves which are superimposed upon the preceding T complex. They also are not followed by a fully compensatory pause. Note that these beats only follow a preceding long R interval. The preceding R interval has been considerably lengthened because it follows a premature atrial contraction. This then is an example of aberration and of premature atrial beat following lengthening of the preceding R interval. This is commonly called the Ashman phenomenon. The diagnostic importance here lies in avoidance of misinterpretation of these beats as premature ventricular contractions.

Final Diagnosis: Premature atrial contractions with intermittent aberration secondary to the "Ashman phenomenon."

HARRY L. PAGE, JR., M.D.

W. BARTON CAMPBELL, M.D.

Co-directors

Reference: Gouaux and Ashman, *Amer. Ht. J.* 34:366, 1947.



from the tennessee department of public health

Office Of Vital Records Implements An Improved System

The Office of Vital Records has implemented a series of procedures designed to achieve one of its priorities—to do a better job of processing requests for death certificates and other vital records.

This Office of the Tennessee Department of Public Health plays a significant role in the statistical accounting of Tennessee births, deaths, marriages and divorces. These records are *vital* to individuals when they enroll in school, participate in organized athletics, need a passport, file for social security benefits or enter practically any negotiation requiring solid proof of age, citizenship or residency.

Generally, before the family of the deceased can collect insurance, retirement, Veterans Administration or Social Security benefits, a certified death certificate must be filed with the claim.

Understanding that time is of unique importance in processing certificate requests, the Office of Vital Records has put a high priority on a more efficient system of processing these documents. After extensive study of the processing procedure of death certificates, the Tennessee Department of Public Health has contacted groups involved with these documents attempting to eliminate delays and to offer assistance if needed.

The Tennessee Department of Public Health asks each physician, hospital and nursing home official and other persons concerned with these documents to expedite the signing and processing of the certificates so that Tennesseans can be served more efficiently.

The hardship of delay can prove discomfoting, and sometimes disastrous, to families who face immediate funeral costs as well as reasonable adjustment expenses because of a death. These families often depend on their insurance, company benefits or social security benefits, but the firms and agencies require that a certified copy of the death certificate be filed with all claims.

An extensive internal evaluation of the state's Division of Vital Records operations has been conducted by a task force called together when the Division became a part of the broader Tennessee Center for Health Statistics. The Center

for Health Statistics represents a progressive step toward comprehensive use of health information. The Tennessee component works closely with the Department of Health, Education and Welfare's National Center for Health Statistics.

The center is providing as much input as possible in solving the complex problems of health planning, management and evaluation. The national goal is to provide an economical and effective method of establishing and maintaining a data base to guide decision making regarding health care in the United States.

There is a growing concern throughout the nation over the inaccessibility of health care and the quality of services available. A number of health related problems—included soaring costs throughout the entire industry—demand equitable solutions. The Center for Health Statistics is a major step toward providing analogies for those answers.

The Tennessee Center for Health Statistics hopes to help solve contemporary health problems by compiling as much relevant data as possible and evaluating it on a local level while at the same time providing it to the National Center for Health Statistics to aid in a sophisticated analysis of the national health structure.

When in full operation, the Tennessee Center will concentrate on seven components in health and vital statistics:

Manpower Statistics—To provide data on the numbers, characteristics and distribution of health personnel. This information is necessary to assess current health manpower capabilities and health service needs, and to project future demands. The inventories will be based on 100 per cent coverage and will furnish up-to-date continuing basic data. They also will provide the means for obtaining valid samplings for a variety of surveys; for example, the attitudes of medical practitioners toward proposed new health programs.

Health Facilities Statistics—To include information on the numbers, types and location of health facilities, as well as the types of services rendered and characteristics of the recipient population. The efficient use of existing facilities and the rational planning for future facilities demand

(Continued on page 1010)

Tennessee Mid-South Regional Medical Program and the Care & Treatment of the High Risk Newborn

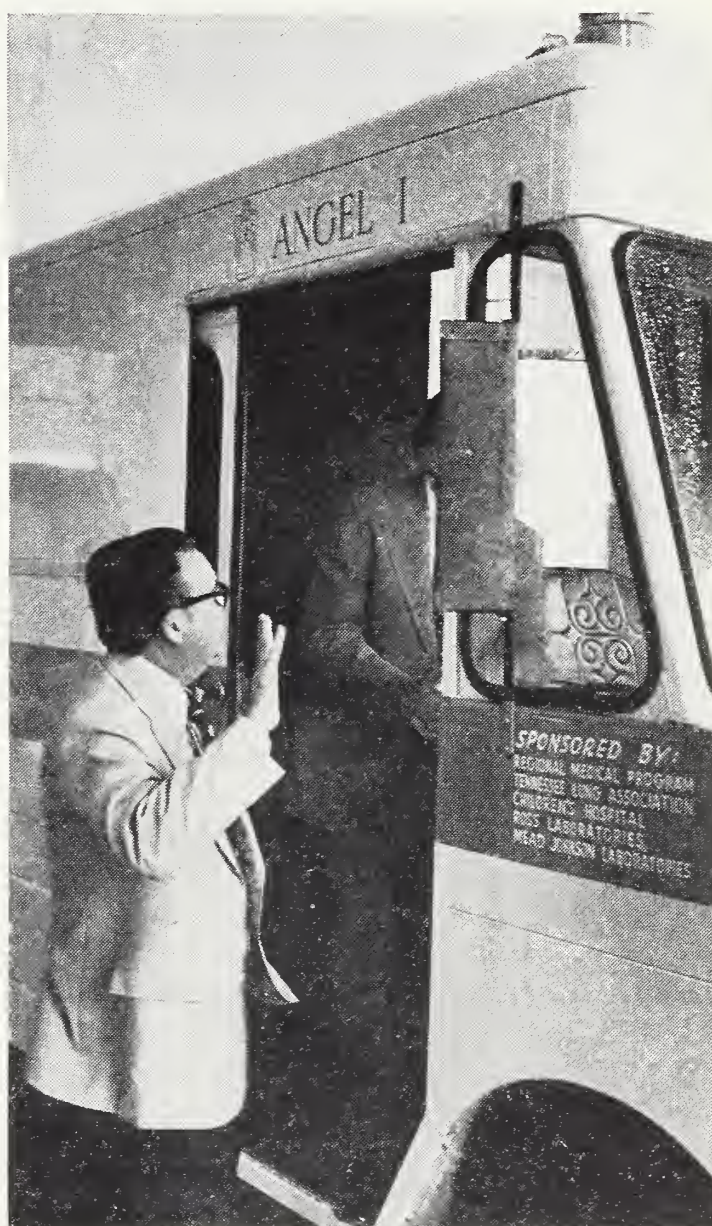
In years to come, it is probable that the consensus of medical opinion will be that one of the most enduring and beneficial programs to have been supported by the Regional Medical Programs in the State of Tennessee was the development of a state-wide network to care for the high risk neonate. The Tennessee Mid-South Regional Medical Program is currently funding two projects which are geared to the care, treatment and diagnosis of these high risk babies. Both of these programs offer regionalized care emanating from a medical center: Vanderbilt Hospital in Nashville and University of Tennessee Memorial Research Center and Hospital in Knoxville. Since the Memphis Regional Medical Program sponsors a similar effort, directed by Dr. Sheldon B. Korones, at the City of Memphis Hospital, these specialized services are available to the entire State of Tennessee.

The Program at Vanderbilt is entitled "Regionalization of High Risk Newborn Care," and the project director is Dr. Mildred T. Stahlman. She also directs a \$2.5 million research grant which is one of two in the nation funded by the National Institutes of Health for the further investigation of hyaline membrane disease. The portion of the program funded by the Tennessee Mid-South Regional Medical Program has three phases: 1) the transportation of sick babies; 2) the education of nurses and physicians; and 3) a consultation service to upgrade the facilities for sick neonates at local hospitals.

The transportation of sick babies is accomplished by use of a special transport van with equipment duplicating that found in the Newborn Intensive Care Unit at Vanderbilt University Hospital. The van has a generator for independent electrical power; a hospital-grade, non-hazardous electrical system; an oxygen, compressed-air and vacuum system; a water system with sinks, storage cabinets, heating and air-conditioning; hospital-grade interior lighting and exterior rotating beacons and siren. Respirators are wall-mounted, and the incubator is secured to the wall in such a way as to permit removal and replacement. A

blood-gas determination system is also available for the evaluation of the patient's condition. This van is maintained and ready at all times in the parking lot at Vanderbilt Hospital. Referrals are accepted from any physician or hospital within a 150-mile radius of Nashville. Arrangements have been made with the MAST program at Ft. Campbell to transport babies by helicopter when use of the van is not feasible because of weather conditions.

When a referring physician calls the Newborn Intensive Care Unit at Vanderbilt in order to request help with a sick neonate, he discusses patient's history, present physical status and lab-



Dr. Richard O. Cannon, Director of TMS/RMP, viewing Angel I-transport van used by the Vanderbilt Program.



Inside of Angel I.



Dr. Skelton, referring physician, and Mrs. Majors treating sick neonate.

oratory data with Dr. Angela Skelton, who is the physician in charge of the transport service. She is assisted by Dr. Elizabeth Perkett, a Clinical Fellow, and Mrs. Cheryl Majors who is a specially trained nurse. Three trained drivers make up the rest of the transport team, so that full time service, 24 hours a day, seven days a week is available.

Upon arrival at the referring hospital, the battery-powered portable incubator, or incubators if twins are involved, is taken into the nursery where emergency diagnostic tests are performed, and treatment is initiated. Each incubator is equipped with a battery-powered cardio-monitor, tele-thermometer and Holter Pump. A doppler-blood pressure monitor, and oxygen analyzer is carried along with emergency medications, intravenous fluids and resuscitation equipment. Once the baby's condition is stable, he is taken in the incubator to the van where he is constantly monitored and treated while enroute to Vanderbilt.

While the transport team is at the referring hospital, the participation of the hospital personnel and the referring physician is encouraged. The rationale for certain procedures is explained, and suggestions are made regarding any different modes of treatment which might have been more effective in the early care of the baby. This one-to-one consultation is probably the most practical means of carrying out the educational component of the program, although a series of seminars is planned for physicians and four special 80-hour courses have already been offered for nurses.

The transport team maintains constant contact with the Newborn Intensive Care Unit at Vanderbilt by means of a transmitter/receiver radio in the van. This is useful in notifying the Nashville Intensive Care Unit of changes in the baby's condition which might necessitate the attention of various medical specialists immediately upon arrival. This radio can also be used to transmit EKG tracings which might be of value in selective situations.



Dr. Mildred Stahlman and Mr. Carl Wallace, member of the Regional Advisory Group in N.I.C.U. at Vanderbilt.

Since the first of August when the van was put into operation, it has gone out on a call on an average of at least once a day. From that time, until the end of October, 56 babies have been transported. Five to ten years ago, these babies would not have been considered viable or even salvagable and would have been left in the delivery room to die.

The program in Knoxville is called the "Co-ordinated Pediatric Educational Service" and is directed by Dr. Henry Christian.¹ Neonates in distress are transported from outlying areas within a 200 mile radius of Knoxville to the Newborn



Dr. Elizabeth Perrett and assistant in N.I.C.U. at Vanderbilt.

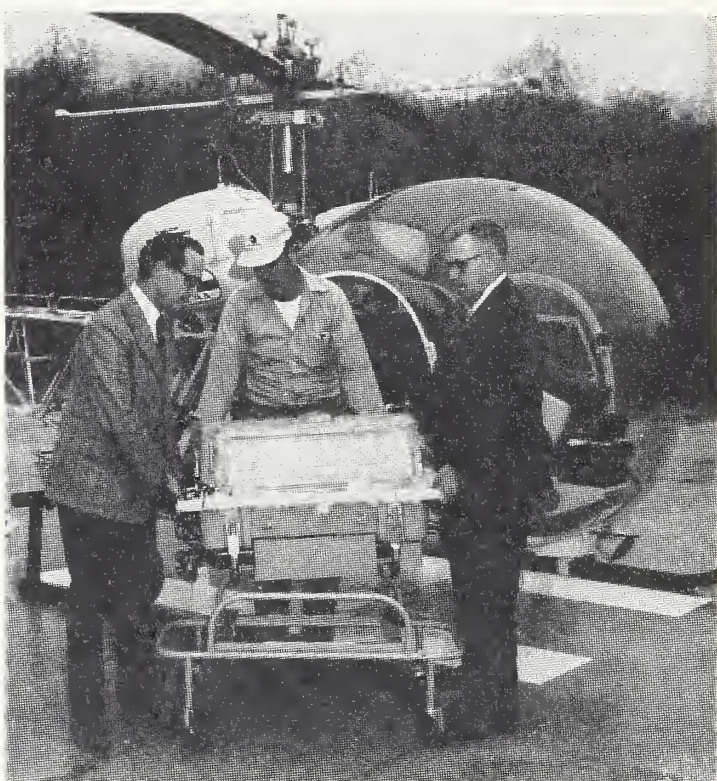
Intensive Care Unit at University of Tennessee Memorial Research Center and Hospital. These babies are moved in either a Volkswagen bus containing a portable isolette or by local ambulance if the baby is born in one of fourteen hospitals in the area where portable isolettes have been placed. A trained nurse or an LPN accompanies the baby in the ambulance during the trip from the hospital to Knoxville, and the attempt is made to get the baby to the Intensive Care Nursery as quickly as possible. The name for the program derives from the fact that this program has trained nurses throughout the East Tennessee area to perform this function. When the Volkswagen bus is dispatched from University of Tennessee Memorial Research Center and Hospital to a hospital where there is no isolette, Dr. Christian or one of the other program physicians, Dr. Donald T. Neblett or Dr. Thomas E. Lester, go with the bus to the hospital and return in the van with the baby. Dr. Christian feels that it is imperative that the baby be transported as quickly as possible to the place where the sophisticated equipment exists to maintain and ensure life.

Another mode of transportation utilized by this program is a helicopter service provided by the TVA. This is an invaluable method for remote places with the mountainous terrain which characterizes so much of the area served by this project.

Since the program's inception 4 years ago, 1700 babies have been treated in the Newborn Infant Intensive Care Unit. Of these, 1222 have been transported while the remainder were born



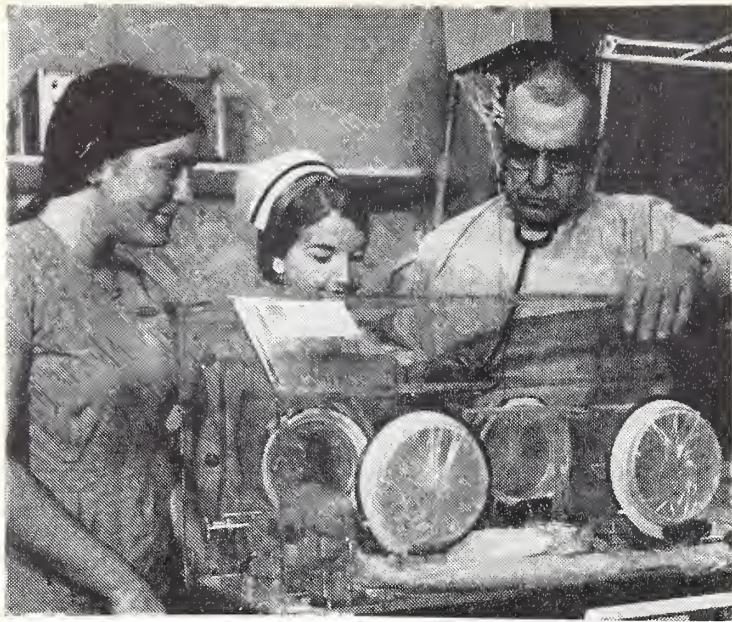
Dr. Henry Christian and assistant removing isolette from van in Knoxville.



Dr. George Zirkle and Dr. Henry Christian removing isolette from helicopter in Knoxville.

in the hospital. Of the babies transported one-third were transported by helicopter, one-third by Volkswagen bus and one-third by local ambulance.

The physicians in charge of both programs stress the fact that the earlier the sickness or distress in the neonate can be detected, the more likely that it is that it can be successfully treated. Dr. Christian states, "Each physician dealing with newborn babies must maintain a high index of suspicion. Don't procrastinate. If you feel that the infant requires treatment, refer him immediately." The obvious conditions which might re-



Dr. Henry Christian and assistants at N.I.C.U. at U.T.M.R.C.H.

quire treatment are: babies who have trouble breathing, very small birthweight infants and infants with surgical problems. All the physicians who work in these two programs stress the fact that the early treatment of sick neonates is of prime importance.

* * *

Tenn. Dept. of P.H. . . .

(Continued from page 1006)

an adequate data base. Again, the inventories provide not only ongoing basic data on facilities, but comprise a sample frame for surveys in any particular area in which more detailed study is necessary.

Hospital Care Statistics—To provide data about patients and services in short-stay (under 30 days) hospitals. Information collected through this component is necessary for appropriate planning to improve the accessibility, quality, and cost effectiveness of hospital services.

Household Interview Statistics—To obtain from interviews of a sample population information about a wide variety of health-related questions, including data on perceived health problems, acute and chronic diseases, disability due to accidents and illness, utilization of health services, and expenditures for care. From such information measures can be constructed of the health status of the population, the need for health services, and some expression of the accessibility and availability of services.

Ambulatory Care Statistics—To provide information on care given to noninstitutionalized patients in physicians' offices, group practice settings, public health clinics, hospital emergency rooms

Funds for these programs come from federal grants from the Tennessee Mid-South Regional Medical Program as well as from other sources. There is no charge to either the babies or to the referring hospital. It is obvious that these programs will never be self-supporting, and both Dr. Stahlman and Dr. Christian are confident future sources of funding will be identified when the Regional Medical Program grants expire in June 1975. A bill was passed by the 1974 Tennessee State Legislature which established three regional centers to care for high risk newborn infants throughout the state, in Memphis, Knoxville and Nashville. However, the bill was passed without any actual appropriation of money. Perhaps the next session of the Tennessee Legislature will provide some of the funds for this vitally important health program.

Reference

1. Christian, HS, et al: The Intensive Care Nursery: Past, Present, and Future. *TMAJ*, 66:425-428, May, 1973.

and outpatient clinics, and through home visits or telephone consultation. Such data will permit more rational planning to improve the delivery and quality of ambulatory care.

Long-Term Care Statistics—To provide information on patients and services in nursing and convalescent homes, mental institutions, and other extended care facilities, as well as alternative forms of care such as home health programs. Such data are valuable for patient care, management, evaluation and policy development.

Vital Statistics—To include data on births, deaths, fetal deaths, marriages, and divorces, as well as follow-up surveys based on samples of vital records to evaluate the data collected and to obtain additional information. Vital statistics are important indicators of health problems and service needs. Cooperation among local, State and Federal agencies has been traditional in this area, and the Cooperative System will enhance this existing relationship.

Information compiled, tabulated and analyzed through this state and national effort will be available for use by all facets of the health care industry. The Tennessee Department of Public Health believes this Center will provide better information contributing to more exact data for comprehensive and universal planning, management and evaluation.

Creatine Phosphokinase Isoenzymes in the Diagnosis of Myocardial Infarction

In 1960 Dreyfus and co-workers demonstrated that elevation of creatine phosphokinase (CPK) was an important laboratory manifestation of acute myocardial infarction. However, after further study of serum CPK it became evident that this enzyme may be elevated with numerous other conditions besides myocardial infarction. These conditions include pulmonary thrombo-embolism, cerebral vascular disease, disorders of skeletal muscle, pancreatitis, hypothyroidism, shock, the postoperative state, convulsive disorders, and intramuscular injections or electrical cardioversion.

Because of the nonspecific nature of increased serum CPK, efforts have been directed toward using CPK isoenzyme measurements to improve identification of the specifically damaged organ responsible for serum CPK elevation. Three serum CPK isoenzymes (MM, BB, and MB), have been identified by electrophoresis. Each is a dimer composed of two subunits of the M or the B type. Extracts of brain contain predominately the BB isoenzymes and those derived from myocardium contain MM and MB activity. Skeletal muscle is composed almost entirely of MM with very small amounts of MB. In our laboratory repeated electrophoresis on patients with severe skeletal muscle trauma showed no evidence of an MB band. Therefore, it is thought that the amount of MB in skeletal muscle is not of any clinical significance in evaluating myocardial necrosis. At the present time it is assumed that the heart is the only organ that contains significant amounts of MB isoenzyme; consequently elevation of serum CPK-MB activity in man generally reflects myocardial injury. CPK isoenzymes are separated by cellulose acetate electrophoresis and the resultant patterns are evaluated visually under ultraviolet light, which detects the fluorescence of NADPH generated during incubation. This method is sufficiently sensitive to detect the MM isoenzyme (muscle) which is present in all normal serum.

Recent reports in the literature have demon-

strated the value of determining CPK isoenzyme activity and have shown that elevations of the CPK-MB is more specific than elevation of total CPK activity as an index of myocardial injury. Timing is a critical factor in the detection of the CPK-MB isoenzyme. It is most frequently detected between six and eight hours after the onset of acute symptoms coincident with infarction. Both the MM- and the MB-CPK bands increase with the rising CPK activity. As the acute episode resolves, the MB fraction decreases rapidly and is usually undetectable after a 48-hour interval. The total serum CPK usually remains elevated for an average of 24 hours following the disappearance of the CPK-MB band. It is estimated that the portion of the total CPK activity attributable to the CPK-MB form varies from 12 to 38 percent. Therefore, the major form of CPK released from the myocardial cells is the MM form. CPK-MB may be present in cases of myocardial infarction where the total serum CPK level is within the normal range. CPK-MB has also been demonstrated in a patient with generalized periarteritis with no clinical evidence of myocardial infarction. The presence of the CPK-MB isoenzyme has also been reported in progressive muscular dystrophy, dermatomyositis, polymyositis, and conditions associated with myoglobinuria. These conditions should not present a major clinical problem and could be differentiated from myocardial disease in the laboratory by the simultaneous analysis of the LDH isoenzyme pattern.

The following clinical settings have shown the usefulness of CPK isoenzymes: 1. In the detection of myocardial infarction in patients with concurrent serum CPK elevations caused by skeletal muscle trauma (surgery or intramuscular injection). 2. Assessing myocardial injury in patients undergoing coronary artery bypass grafting procedures. 3. Detecting extension of myocardial infarction in patients whose total CPK activity is already elevated.

With many conditions resulting in increased total serum CPK activity, the determination of CPK isoenzymes seems to provide a sensitive and specific indication of acute myocardial infarction.

A. N. SOLLEE, M.D.

From the Department of Pathology, Methodist Hospital, Memphis, Tenn.



self-evaluation quiz

THE COOPER REVIEW

Answer true or false unless otherwise indicated

(Answers found beginning on page 1037)

1. The most frequent complication of a bicuspid aortic valve is:

- a. Severe incompetence
- b. Stenosis
- c. Bacterial endocarditis
- d. Coronary arterial embolus
- e. Ruptured sinus of valsalva

2. A 55-year-old male engineer presents with complaints of pain behind the left ear and drooping of his mouth on the left. Symptoms began spontaneously three days before but are progressing. He admits that noises "bother him" and his left eye is sore and teary. However, he denies all other neurologic symptoms, recurrent or antecedent infections, trauma, exposure to cold or rashes. Aside from a generalized feeling of fatigue and a 10 lb. weight loss, his general health has been good. His father developed diabetes at the age of 75.

Physical examination is unremarkable except for mild obesity, a complete peripheral VII nerve palsy on the left, inability to identify salt and sugar on the left half of his tongue and a slightly reddened tearful left eye.

Questions

(1) Pain as a complaint in idiopathic VII palsy is:

- a. Common
- b. Uncommon
- c. Incompatible with the diagnosis

(2) Which of the following is currently the treatment of choice in idiopathic VII paralysis of less than a week's duration?

- a. Prednisone, if there are no contraindications
- b. Megavitamin therapy
- c. Surgical decompression of the VII nerve
- d. None

(3) Which of the following lab studies would be essential?

- a. CBC & Diff.
- b. Skull x-ray
- c. Fasting blood sugar and 2 hour post-prandial blood sugar
- d. Audiogram
- e. CSF examination

3. Recent studies indicate that the level of carcinoembryonic antigen (CEA) in plasma is: (Choose one or more answers)

- a. A reliable screening test for malignancy
- b. A reliable screening test for adenocarcinoma of the colon
- c. A valuable test for postoperative follow-up of patients after colonic resection for adenocarcinoma
- d. None of these

"The Cooper Review" is published by the Department of Medical Education, The Cooper Hospital, Camden, New Jersey, Sherman Garrison, M.D., Director. Produced by the Medical Staff of The Cooper Hospital, "The Cooper Review" is a review of clinical observations and contemporary problems encountered by the staff.

**from the
executive
director**

J. E. BALLENTINE

MEDICAL DIGEST

NEWS OF INTEREST TO DOCTORS IN TENNESSEE

BEWARE! BEWARE!—OF INTERNATIONAL DIRECTORY OF PHYSICIANS . . . Throughout Tennessee and other states, physicians have been mailed a statement for \$185.00 to include the physician's name in a directory . . . Such solicitations are marked "Invoice/Statement" and have the appearance of being an invoice for service rendered . . . Physicians across the state have received these notices for listings in the International Medical Directory of Physicians published by Mayo Research & Publishing Company of Hong Kong. These solicitations are without any foundation . . . The bills are mailed from San Francisco. There is no such directory. We have reported this matter to the postal inspectors and have taken this up with the Better Business Bureau. The postal authorities have moved fast, and we understand that the post office in San Francisco is now blocking return mail to this organization . . . Alert your office staff in the event that inadvertently a check may be made to this organization without your authorization . . . Investigation is still going on with proper authorities for action as warranted.

* * * * *

AMA BOARD MAKES MAJOR REALIGNMENT TO MEET RISING COSTS . . . The AMA Board of Trustees has announced major realignments and consolidations in order to sharpen the focus of AMA's scientific and legislative services . . . The Board recommends to the House of Delegates: (1) A balanced budget of \$35,311,029 for the fiscal year 1975 that began December 1; (2) Eliminate 2 councils and 17 committees of the Board, recommended elimination of 11 committees of the House of Delegates; (3) Recommended that AMA discontinue advertising in all AMA publications; (4) Will reduce AMA staff from 997 to 950 next year; (5) Requested the House of Delegates to approve an annual dues increase from \$110 to \$200 per member effective January 1, 1975. Dues to interns and residents would also be increased; (6) Reduction of number of AMA Journals from 52 to 48 annually plus reducing the number of issues of specialty journals, and charging for each specialty journal received; (7) Discontinue publication of several newsletters . . . These actions became necessary to keep AMA on a sound financial basis in the inflationary cycle which faces Medicine. A final report of these recommendations after they have been acted upon by the AMA House will be reported in the next issue of the JOURNAL.

* * * * *

TMA BOARD OF TRUSTEES—ABSTRACT OF OCTOBER 6 MEETING . . .

--Directed the Committee on Communications and Public Service to look into the possibilities of making awards yearly to editors of some state newspapers in appreciation of news to improve medical care that might have appeared in their publications during the year. Also, suggested that the Committee look into an award for a Senator or Representative from Tennessee for his input for health programs.

--Directed Committee Legislation to seek to obtain a seat on the Commission on Law Enforcement for the State's Chief Medical Examiner.

--Voted to contribute funds for the reception in 1975 at which time Mrs. E. E. Wilkinson, Nashville, will be installed as President of the AMA Woman's Auxiliary.

--Adopted action recommending that the Tennessee Delegation to AMA House of Delegates develop a resolution to be presented at the Clinical Session to clarify the ethical payment of procedures performed by a resident under the direction of the attending physician.

--Appointed members of the Board of Directors of IMPACT for 1975.

--Adopted action to have TMA officers and Board of Trustee members to visit county medical societies throughout the State whenever invited. This would be for the purpose of information with the local level of medicine.

--Heard a lengthy report of proposed increase in liability and malpractice insurance rates regarding the filing for a 250% increase in premium rates. The Board urged TMA representatives to impress upon legislators the seriousness of this matter, to explore the possibility of statutory relief, and to seek further information from other states that had taken this approach.

--Directed the Committee on Group Insurance to continue to protest the rates and diligently seek any relief on steps that were possible even to the extent of finding another carrier, plus the legislative relief aspect. The Insurance Committee has been closely working with the Insurance Commissioner in all of these proceedings.

--Approved a revised voucher and rules for reimbursement of travel expenses to officers, staff, committee members, Delegates and any reimbursement for travel from TMA.

--Urged physicians to use uniform claim form.

--Reviewed in detail legislative program proposed for the General Assembly, covering such issues as Amendments to the Healing Arts, Basic Science, and the Medical Examiners Acts, and discussed the changes recommended by the Board's ad hoc Committee on Medical Licensure.

--Reviewed and directed as to how these proposed amendments should be considered. Withdrew TMA's sponsorship of original position to bring a Physician's Assistant bill to the General Assembly in 1975.

--Approved the third quarter financial statement for fiscal affairs and approved the proposed budget for the 1975 fiscal year as submitted by the Finance Committee.

--Heard a report from the Travel Committee on sponsored TMA tours along with a briefing of the proposed tour to the AMA Clinical Convention in Hawaii in 1975.

--Heard a report from a lawsuit brought by a Nashville attorney against the Attorney General of the State and the Nashville Academy of Medicine, pertaining to requiring physicians to testify in court rather than submit a deposition.

in Brief

A summary of AMA, medical & health news

American Medical Association / 535 North Dearborn Street / Chicago, Illinois 60610 / Phone (312) 751-6000 / TWX 910-221-0300

Regional continuing education programs will be offered by the AMA beginning next year with meetings in Tampa, Fla., Phoenix, Minneapolis, and Williamsburg, Va. The purpose of the programs is to take continuing education courses to physicians throughout the country. Each regional program will include eight courses and will be held on weekends to enable physicians in each region to attend at the lowest possible cost in time and travel expense. Active support from state medical associations will be sought in each region.

The Board of Directors of the Woman's Auxiliary to the AMA has directed that the organization change its name to the "AMA Auxiliary." Recent changes in the auxiliary's bylaws provide for male membership. A new programming format has also been adopted by the auxiliary to allow for more grassroots participation.

Two important AMA meetings scheduled for early 1975 are the AMA National Leadership Conference and the AMA-AMPAC Public Affairs Workshop. The 1975 AMA National Leadership Conference, Jan. 24-26, at the Marriott Motor Hotel, Chicago, will include ten seminars and several general sessions on issues of importance to medical society leadership. The 1975 AMA-AMPAC Public Affairs Workshop, March 7-9, at the Washington Hilton Hotel, Washington, D.C., will look ahead and examine the political climate for medicine created with the election of the 94th Congress. For information write AMA National Leadership Conference or AMA-AMPAC Public Affairs Workshop, AMA Headquarters.

A recent survey conducted by the American Society of Internal Medicine indicates that the majority of internists responding favor recertification. Thirteen thousand responses were received and 56.7% of those said they favor recertification.

An advertising campaign to educate consumers about the use of over-the-counter drugs has been launched by the FDA. The FDA has asked broadcasters and publishers to use specially developed ads to alert the public to this message about OTC drugs, "Read the label. Don't take non-prescription medicines for granted. Take them with care."

Edward L. Lilly, MD, became the 168,215th dues-paying AMA member for 1974. Dr. Lilly's enrollment as a member put AMA dues-paying membership records over their all-time high of 168,214. AMA dues-paying membership as of Oct. 25 was 169,436.

Eight AMA constituent societies and one national specialty society are now using AM-CAP--American Medical Computer Assistance Programs. Through AM-CAP, the AMA's Dept. of Data Services provides a society with membership dues billing and collection reporting, directory preparation, membership information, and other services. A brochure describing services available through AM-CAP may be obtained from Dept. of Data Services, AMA Headquarters.

The U.S. infant mortality rate was at a record low during the first six months of 1974. It was 17.1 per 1,000 live births, compared to 17.9 for the same period in 1973.

Available from AMA: *Medical Licensure Statistics for 1973*, an AMA report. OP-226 is available for \$1 each for medical students, interns, and residents and \$2 each for others from Order Dept., AMA Headquarters...*Allied Medical Education Directory* provides statistics and facts on education for the 25 allied medical occupations. OP-392 is available for \$2.25 for 1-10 copies, \$2.05 for 11-49, and \$1.80 for 50 or more from Order Dept., AMA Headquarters... "Meeting the Press," a 26-minute 16 mm. color film produced by the AMA's Dept. of Television, Radio and Motion Pictures. Available on a free loan basis from AMA Film Library, Assn. Sterling Films, 512 Burlington Ave., La Grange, Ill. 60525...*Let's Talk About Food* discusses dieting and weight control, the composition of food and other topics in a question-and-answer form. Available from Publishing Sciences Group, Inc., 411 Massachusetts Ave., Acton, Mass. 01720...*The Best of Law and Medicine 70/73*, a book (OP-413) designed to help physicians become better informed about the law, is available for \$5 each for 1-10 copies, \$4.50 for 11-49, and \$4 each for 50 or more from Order Dept., AMA Headquarters...*Comments in Sports Medicine*. To order write for OP-62, \$5 each, Order Dept., AMA Headquarters...A booklet describing AMA-ERF activities from AMA-ERF Office, AMA Headquarters.

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E. KENT CARTER

**President's
page**

Some Facts for Physicians

PSRO became law.

The fight raged in local, state and national medical organizations over cooperating with the Federal law or ignoring it. Generally over the nation cooperation carried the day. This was true in Tennessee. The TMA House of Delegates acted to establish the Tennessee Foundation for Medical Care, Inc. and with work and planning, the Foundation was designated by the Bureau of Health, Education and Welfare (HEW) to operate peer review in Area II, which includes most of the state, except Shelby County. I believe it will soon include the entire state, with the exception of Shelby County.

The fighting and controversy has shifted from cooperation with the law, to local battles of who will perform the review; whose computer system will the local area use; who will control the facts; who will set the norms and standards, etc. Local hospital staffs and/or local medical societies had best put their bickering behind them. When the Foundation was designated as the peer review organization for Area II, it was charged with the responsibility for the operation of peer review in its area. The Foundation has the authority to inspect the reviewing mechanism, utilization committee, or quality care evaluation program now in operation, and determine if it meets PSRO requirements. It can approve or disapprove any existing system.

The Foundation is charged with seeing that any system approved does the following:

1. Admission certification concurrent with the admission of the patient, not retroactive.
2. Continued Stay Review.
3. Medical Evaluation Study
4. Discharge Planning.
5. Developing norms and standards for carrying out the above four items.
6. Establish profiles for Area II, which can be reviewed and compared.

Most of us in practice in hospital areas already have a system that does some of the above. I doubt if any of us are associated with a system that accomplishes the first five items completely. Regardless of this, Number Six is a key responsibility designated to the Foundation, and it is a major bone of contention because it requires standard reporting of information to establish an area-wide profile. To accomplish Item Six, facts and figures must be accumulated. It cannot be a hodgepodge collection. They must be collected in a form that is standard to allow for computer processing. The Foundation is not being unreasonable when it requests physicians and hospital administrators that certain information must be submitted on Foundation forms. There must be uniformity in collection of data to prepare profiles.

It matters very little whether your hospital collects the figures from PAS-MAP, TUP, HUP or from any other alphabetically designated system. The fact remains that the Foundation must establish the profiles for Area II for review by big brother, and to establish them they must have your information on their forms. The Foundation system has been approved and authority has been designated.

Join the Foundation and become a member. Urge your staff to put their information on Foundation forms. The most simple solution is to utilize the Foundation's complete system of admission certification, continued stay review, quality care assessment, medical care evaluation, discharge planning,

(Continued on page 1033)

journal

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DECEMBER, 1974

editorials

The Lord That Heals: A Christmas Gift

I am the Lord that healeth thee.
Exodus 15:26

Do you believe healing is from God, the result of His Christmas gift to man? This is written to answer some scripturally unsound notions implying a conflict between Christianity and "rational" medicine, which are not only widely believed about Christians, but are believed and being taught by many in the Christian church. It is written from the point of view of a physician called of God to be just that, who believes about the Bible what it says of itself, that "all Scripture is inspired of God, and is profitable . . .

that the man of God may be . . . thoroughly furnished *unto all good works* (II Timothy 3:16-17). If your view of scripture differs, that is not my problem. This is written not as a defense of Christianity or of the Bible, for they need none, but to set the record straight.

The notion that rational medicine and Christianity are in basic conflict no doubt has multiple and varied roots, but the principle one appears to arise from the error of lumping Christianity with various religions, with which it has nothing in common. Christianity (and orthodox Judaism as well) is *not* a religion. Religion has by definition to do with man's search for God, often including the manufacture of a god of his own choosing or liking, and it often also includes efforts to appease his anger. Although much of what the church does and historically has done falls into this category, it has nothing to do with Biblical Christianity, nor with the faith of Moses and the Prophets. The entire Bible is the story of God's reaching out to man, and His efforts in man's behalf, even when—and usually because—man has turned from Him and rejected Him. One of His efforts in man's behalf is to heal him.

From the beginning, God indicated His desire and His power to heal. To Israel coming out of Egyptian bondage, he said, "I am the Lord that healeth thee." This can be properly translated, "I am the Lord, your doctor." We find Jesus, God's final revelation of Himself, healing all who came or were brought to Him. He did not heal some and turn others away—we are told He healed them *all*.

This has led many people, even many in the church, to see a dichotomy in Christian doctrine. On the one hand, there is the admonition of Christ the Healer, to which Christian physicians necessarily subscribe, to care for the sick. On the other hand, however, there is the conviction that the body is vile, and of no worth as compared to the soul, a notion which has been espoused by some teachers in the church since early times, and which has led to asceticism, often extreme. This doctrine of the dichotomy of the soul and body, however, had its origins neither in Christianity nor in Judaism, but in Greek philosophy, and was considered a grave heresy by the early church. It was specifically because of this Gnostic heresy that the Apostle John wrote his gospel, to show that God, so far from considering the body vile, Himself put on human flesh. Genesis teaches that only when God breathed into man the breath of life, did man

became a living being. Hebrew and early Christian theology insisted that man was man only insofar as he was composed of body, soul, and spirit. The Apostle Paul refers to the body as the temple of the Holy Spirit.

There is, then, not only no scripturally based prejudice against healing, but the members of the New Testament church continued on in the manner of their Lord. Luke tells us (Acts 3) of the beggar at the gate, who does not appear to have been a believer, begging for money, yet Peter in the name of Jesus said, "Rise up and walk." We are told he did, "walking and leaping and praising God." Jesus said, "These signs shall follow them that believe. They shall . . . lay hands on the sick and they shall recover." (Mark 16:17-18). James says (5:14-15), "Is there any sick among you? . . . The prayer of faith shall save the sick, and the Lord shall raise him up."

As Europe was periodically decimated by plagues in the Middle Ages, the church, now become a rich, worldly political power all of whose subjects were automatically Christian by imperial decree, saw itself powerless to cope with disease, and began to teach that sickness was God's judgment on sinners and a testing for believers. Doctors were considered to be functioning against the will of God. A consideration of the reasons for the presence of evil in the world is obviously too complex to be considered here—and possibly anywhere else, though reams have been written about it. Everything in Scripture, though, insists that it is God's will to heal.

How God heals is not at issue in this editorial. That doctors are a part of His plan, however, is indicated by the honored position accorded a Greek physician by the Apostle Paul—Doctor Luke, the writer of the third gospel, historian of the young church, and Paul's "beloved physician." It should be obvious, though, that God does not *need* man to heal. Hence, Christianity is being given a major share of the blame for the retreat from reason which has come about during the past decade as a reaction to overwhelming scientific advance. In fact, however, many more people have turned to yoga, transcendental meditation, Zen—all with their roots in Eastern mystery religion, to witchcraft and Satanism, to "religion," and even to "the church" to avoid turning to God. There is nothing irrational or unreasonable about God, about the Bible, or about Biblical Christianity. God does not require His people to throw away their minds, but to subject them to Him. Though man's use

of it may be evil, truth, which embraces scientific truth and therefore medicine, comes from only one place.

The church has over and over compromised with the world, but in the area of "rational medicine" there has never been a need to compromise. God has always been in the healing business, and He will use any means at his disposal. Like PSRO and a lot of other things, Christianity (as opposed to "the church") and the Bible are attacked most violently by those who know it least well. They often know what people say about it, sometimes they've read what others have written about it, and sometimes, with their minds made up, they don't want to be confused with facts. They should read the manual and get to know the author.

When all else fails, read the directions!

J.B.T.

IMPACT on Politics

It is gratifying that so many Tennessee physicians took part in one way or another in the political campaign just past. A look at contributor lists of the candidates showed the names of a large number of you. As is usual in our free system of choosing our officials, you win some and you lose some.

To those of you whose candidates won, congratulations. To those of you whose candidates lost, congratulations, too—not that you backed a losing candidate, but that you backed a candidate. The beauty of our system is that in two or four years, you'll have another chance, and maybe your candidate will win. It's a cinch he won't if you don't back him.

To those of you who didn't participate, you will also have a chance next time to rejoice or complain with the rest of us. Until then, you have no right to do either. One way in which you can make your voice heard is through IMPACT—Independent Medicine's Political Action Committee in Tennessee. Why not consider becoming a sustaining member while you're at it?

J.B.T.

For The Children

This time of year when our thoughts turn—and indeed are turned—to children. The Babe of Bethlehem. Toy stores. Christmas trees, and so on. If we have children or grandchildren, we try especially hard to make this a happy time, and our thoughts often turn to our own childhood.

A lot of children though have a hard time just making it into the world; but thanks to some very specialized medical services available to you,

a lot of previously potential discards are gladdening the hearts of their parents as well as those of the doctors and nurses participating in their advent.

In the Report from the Regional Medical Programs in this issue, to which I refer you, we read of the programs for the care and treatment of high risk newborn infants at the University of Tennessee Memorial Hospital in Knoxville, Vanderbilt Hospital in Nashville, and the City of Memphis Hospital. These three programs, sponsored by the state's two RMP's, cover Tennessee with a network of specially equipped and manned vans and helicopters to care for the high risk neonates.

It behooves any of you involved in obstetrics or perinatal care to become thoroughly familiar with the availability of these services. It's for the children.

J.B.T.

Reprise: Autumn Color Splashes

Consider the lilies of the field how they grow . . .
I say to you, that even Solomon in all his glory
was not arrayed like one of these.

Matt. 6:28, 29

I have in my hand a maple leaf—not just any maple leaf, but an *autumn* maple leaf. It is golden, splotted with scarlet and fringed with brown. It is becoming wrinkled, and it is dead. It is also beautiful. Though it is perhaps not as scientifically elegant in death as in life, it is much more spectacular. Like everything else in nature, it can be reduced to biological processes and chemical formulas. This can either make it or break it for you—but I hope for your sake it doesn't leave you unmoved.

The beauty of nature, of course, resides not only in the seen, but in the unseen, too, and the coloring process of the things of nature is elegant indeed. Color ultimately comes from light, and what color objects turn out to be depends on their ability to absorb some wave lengths and reflect others. Metal oxides have varying colors, and one of the color-producing groups of organic compounds are the metalloporphyrins. The basic porphyrin nucleus has a formula $C_{20} H_{14} N_4$. The porphyrins found in nature have various side chains substituted for the eight external hydrogen atoms in the porphyrin (tetrapyrrole) nucleus. Metal ions are incorporated into the center of the ring, so that if it is iron, we have hemoglobin or cytochromes, while copper gives the blue respiratory pigment found in some lower orders.

The incorporation of magnesium gives us chlorophyll (Mg^{++} —tetrapyrrole).

Oxidized, hemoglobin is red, cytochromes are yellow, and chlorophyll is green. Reduced, all are colorless. Chlorophyll, of two kinds, *a* ($C_{55} H_{72} O_5 N_4 Mg$) and *b* ($C_{55} H_{70} O_6 N_4 Mg$), along with non-metallic yellow or red pigments, carotene ($C_{40} H_{56}$) and xanthophyll ($C_{40} H_{56} O_2$) and other carotenoids are mixed together in the plant cell cytoplasm in little packets called chloroplasts. Varying the amounts of each gives the living leaf colors ranging from yellow-green to blue-green, and in some leaves the addition of water soluble anthocyanine gives a color bordering onto red or purple.

When the leaf dies, the chloroplast ruptures and the chlorophyll comes into contact with the leaf's sugars, by which it is reduced, becoming colorless. What color remains is due to the lipid-soluble carotene and xanthophyll, water soluble anthocyanins and anthoxanthins, and any unreduced chlorophyll. This is the basic process leading to autumn colors—just like the old copper sulfate reaction, where the oxidized copper is blue and the reduced form is red. I assume everyone but me made the association of this with the coloring of autumn leaves. Every eighth grade science student probably is taught it these days. I had to read it somewhere, embarrassingly late in my career. I don't remember what I thought gave the leaves their autumn glory—I rather suspect I simply enjoyed it as a gift from God, displaying a deplorable lack of intellectual curiosity.

How the color ultimately comes out depends upon the amount of sugar present, the nature of the leaf itself, and the rapidity of its death. If death occurs quickly, as by freezing, the sugar is sealed in, and if it happens to be the type of leaf with enough sugar to reduce all the chlorophyll, lots of color results (if it is the kind of leaf with lots of other pigment). If, on the other hand, the leaf dries slowly or is nipped only slightly, the sugar drains back into the tree, and the leaf just shrivels and turns brown.

But as I contemplate my leaf, and observe its beauty, how can I so easily dismiss the deep red of the oak, the scarlet of the sweetgum and dogwood, or the flaming maple? How can I so explain the constant yellowing and shrivelling of the sycamore leaf, or understand why the hackberry always loses its leaves in September, long before the cold comes? Why, when most of the leaves have fallen, will there be a few trees of

the same kind which not only are still in full leaf, but are green? Or what does it tell me about why the oak turns so late, and why its leaves often cling throughout the winter, until pushed off by new ones next spring? We know so much, yet when the chips are down, it always turns out to be such a small part of the whole, and should leave us in awe of our Creator.

This has been a strange fall—early and short, and very lovely. It sort of crept up on me, maybe because for one thing there were some real autumn days in late August—crisp and cool, with a blue-bird blue sky. Since I knew it was too early really to be autumn, maybe I was lulled into a sort of false sense of security. Then, when autumn finally did come, instead of descending on me, it rose to meet me through an airplane window as I looked down onto the usually dull Illinois checkerboard, and realized there was a lot more color down there than that of summer. The countryside had taken on the aspect of a Seurat canvas, with a perfusion of color splotches of bright red, crimson, and gold, pale pastel pinks and yellows, and the usual greens and browns, making a kaleidoscopic pattern as the earth rushed by. When I got back home to Tennessee, I found the color had moved South in my absence.

What brought all of this on was a couple of mid-October days which began shortly after sunrise at Montgomery Bell State Park near Dickson, Tennessee, and ended near sunset the following day some 250 miles or so to the north in Bloomington, Indiana. A long season can be compressed into a very short time by doing this, and it was.

The foliage at Montgomery Bell was at the height of its color, and the leaves were just beginning to fall, so that there was a thin carpet of color on the ground as I walked down the hill from the Inn to the lakeside. It was cold, and a silvery mist rose from the warmer waters of the lake. Every now and then a “big one” broke the surface with a resounding splash, and the restless water marked its place with cascading ringlets which on one side finally lost themselves in the misty dawn and on the other lapped the shore at my feet. In the disturbed water feathery plants waved back and forth, as silvery minnows darted between them, doubtless hunting for food hidden from my view. The sky was blue and clear overhead, contrasting sharply with the murky dimness of the hollow. At the opposite end of the hollow was the only sunlit spot

visible to me, a brilliantly spectacular hillside, aflame with autumn gold.

As I contemplated all that beauty, which was almost palpable, I became aware of a persistent rapid-fire drumming overhead. I moved up the hillside to get a view of its etiology and finally spotted above me a huge woodpecker pecking away on a dead branch. Though I made no real effort to remain unnoticed, he paid me no mind except occasionally to cock his beautiful scarlet head in my direction and give me the “fish eye,” all the while drilling and eating, drilling and eating. Finally, apparently having finished his breakfast, he gave me a final once-over—I thought disdainfully—and away he flew, a flash of red and black and white.

In looking for the woodpecker, I had moved away from my enchanted corridor. When I returned to enjoy it further, it had vanished. All the structures were there, but the enchantment had fled with the coming of the sun. I used to be a “camera nut,” and for most of my life my view of the world was rectangular. I was forever jockeying for the best angle, like Faust trying to freeze forever the moment fleeting: “Yet still delay—Thou art so fair.” I took lots of pictures, and some were good and many were beautiful. But film will preserve only small, flat pieces of God’s world. How liberating to have a wide field of view! A picture may be worth a thousand words (which I doubt!) but a wide angle view, with feeling, is worth a thousand pictures!

October is the month when a major portion of our country changes from summer to winter, in fact, if not in theory. Because winter moves for the most part progressively southward in the nation’s middle basin, the trip to Indiana took me through the two or three critical weeks of fall in a few hours, from sheltered areas around Nashville where the leaves were just beginning to “turn” to Brown County, Indiana, one of the most gorgeous color spots of the nation, where on many hillsides the trees were now virtually bare, their colorful cloaks thrown on the ground as a welcoming gesture to Old Man Winter. All along the way, the banks bordering the interstate, sewn with grass and spotted with undergrowth—prosaic and unprepossessing enough in summer—displayed a brilliant patchwork of crimson and gold in a green matrix. And every so often, in the northernmost, barest places, across a field a protected hill occasionally loomed up, its lowest tier still green, and above it the whole gamut of brilliant color.

As I drove along, I watched the bright blue October sky turn hazy, then change to overcast, first at different levels, where between broken low gray clouds I could still see the sky, now a corrugated blue and white, looking for all the world like the sand in the tidal pools at the seashore, the result of very high formations of ice crystals being sculptured by air currents. Very soon, though, all was low overcast, and dark, and a cold drizzle had begun to fall. A few bright leaves clung tenaciously to the lower branches of the trees, the underbrush was still livid with color, and there was an occasional full-leaved tree, usually brilliant, sometimes green. But there was no doubt that though there would be other warm, bright days, I was being given a sneak preview of winter. There were even a few flakes of snow mixed with the drizzle.

So I hold in my hand one of the leaves, splotted with red and gold, edged in brown, beginning to wrinkle—dead but still beautiful. It is a reminder that winter should be here by the time you read this a few weeks from now.

J.B.T.



October 14, 1974

Birth Defects Prevention Clinic

To the Editor:

An inter-departmental facility, the Prenatal Birth Defects Prevention Clinic, has been established at Vanderbilt University Hospital, Nashville, Tennessee. The center is staffed by members of the departments of Obstetrics & Gynecology, Pediatrics, and Medicine.

It is our purpose to offer appropriate genetic counselling and testing to parents who have had defective or deformed children and fear that their next offspring might be similarly affected.

We should like to extend diagnostic and therapeutic services to physicians caring for women who are contemplating pregnancy and who are reluctant to become pregnant because of the fear of birth defects, or women who are already pregnant and may fall in the high risk category for untreatable genetic diseases in their families.

Due to technological advances in tissue culture, it is now possible to perform chromosomal and enzymatic analysis on fetal cells in amniotic fluid obtained by amniocentesis. If a fetus is found to be affected, upon recommendation of the Medical Advisory Board of this center, medical termination of the pregnancy may be offered to the patient.

Among the disorders to which the center directs its attention are:

- A. Chromosomal disorders.
 - 1. Down's syndrome.
 - 2. Other trisomies.
 - 3. Partial monosomies.
 - 4. Translocations.
 - 5. Deletions.
 - 6. Certain forms of Mosaicism.
- B. Sex-linked disorders.
 - 1. Muscular dystrophy (Duchenne).
 - 2. Hemophilia A&B.
 - 3. Other rare sex-linked conditions.
- C. Enzymatic and Metabolic Diseases.

A reasonable fee will be charged for these services; however no patient will be refused care due to inability to pay. Referral of the patient back to the original physician is contemplated.

Should you feel that any of your patients might benefit from this service, please feel free to contact us by telephone or mail at the above address and phone number listed on this letterhead.

We ask that you particularly consider using the chromosome studies service for pregnant women over the age of 35, who are of high risk for Mongolism and other chromosomal abnormalities.

Sincerely yours,
 DAVID ACKER, Instructor
 Obstetrics & Gynecology
 IAN BURR, Associate Professor
 Department of Pediatrics
 ERIC ENGEL, Professor
 Department of Medicine
 DONNIE RICHMAN, R.N., MN.
 Obstetrics & Gynecology

Erratum

To the Editor:

As a Francophone, I must point out the errors on pp. 863/4 of JTMA, Oct. 74.

The quote should read:

plus ça change, plus c'est la même chose
 (Alphonse Karr, *Les Guepes*, 1849)

T. MARK HODGES
 Vanderbilt Medical Center Library

To the Editor:

The following unpublished letter to *The Nashville Tennessean* is transmitted for publication in the JOURNAL.

Editor November 13, 1974
 The Nashville TENNESSEAN
 1100 Broad Street
 Nashville, Tennessee 37203

To the Editor:

We take notice of the fact that once again the Nashville TENNESSEAN uses false statements in an effort to sway public opinion towards your own. The editorial that appeared in your November 13, 1974 issue states that the American Medical Association "poured vast sums of money into the campaigns of candidates for congress." The truth is that the AMA did not spend even one dollar in any campaign since federal law prohibits such contributions.

And, as one might expect from the TENNESSEAN, you fail to point out that although 54 of the AMA's 186 sponsors of its National Health Insurance proposal were defeated in the recent election, the 132 remaining members of Congress (both Democrats and Republicans) who endorsed the legislation is still more sponsors than all other National Health Insurance proposals have *combined*. Not too bad a position, irrespective of your assessment.

Also just for the record, organized Labor groups reported spending \$4.3 million in the election in its losing effort to elect a veto-proof Congress. We will await the actions of this new Congress to see just who got its money's worth.

DAVID H. TURNER, M.D., *Chairman*
Independent Medicine's Political Action
Committee—Tennessee



CAMP, WILL, Rock Island, died October 17, 1974, age 92. Graduate of Vanderbilt University, 1908. Member of Nashville Academy of Medicine.

CLAYTON, EVERETT McCORD, JR., Nashville, died October 3, 1974, age 51. Graduate of University of Tennessee, 1947. Member of Nashville Academy of Medicine.

CORNETT, DENNIS M., Chattanooga, died October 23, 1974, age 56. Graduate of Medical College of Georgia, 1943. Member of Chattanooga-Hamilton County Medical Society.

CROSWELL, CLYDE V., Memphis, died November 2, 1974, age 77. Graduate of University of Tennessee, 1925. Member of Memphis-Shelby County Medical Society.

DIXON, WILLIAM CLARENCE, Nashville, died October 8, 1974, age 93. Graduate of Vanderbilt University, 1903. Member of Nashville Academy of Medicine.

HALL, EMMETT, Memphis, died October 4, 1974, age 84. Graduate of University of Louisville, 1914. Member of Memphis and Shelby County Medical Society.

MASON, HOBERT ODELL, Alexandria, died October 17, 1974, age 62. Graduate of University of Tennessee, 1936. Member of Smith County Medical Society.

MOBLEY, JOSEPH CLINTON, Memphis, died October 21, 1974, age 63. Graduate University of Tennessee, 1935. Member of Memphis and Shelby County Medical Society.

TAYLOR, W. W., Memphis, died October 27, 1974, age 64. Graduate of University of Tennessee, 1939. Member of Memphis and Shelby County Medical Society.

THOMAS, DAN R., Knoxville, died October 24, 1974, age 80. Graduate of Vanderbilt University, 1919. Member of Knox County Medical Society.

new members

The JOURNAL takes this opportunity to welcome these new members of the Tennessee Medical Association.

CHATTANOOGA-HAMILTON COUNTY MEDICAL SOCIETY

Joel Eugene Avery, M.D., Chattanooga
John Benjamin Brimi, M.D., Chattanooga
Bruce E. Dahrling, II, M.D., Chattanooga
Drewry Edgar Haskins, III, M.D., Chattanooga

NASHVILLE ACADEMY OF MEDICINE

David Acker, M.D., Nashville
Ronald B. Addlestone, M.D., Nashville
William J. Binkley, M.D., Madison
Joseph N. Blunk, M.D., Nashville
David G. Bowers, Jr., M.D., Nashville
M. Gary Carter, M.D., Nashville
James E. Fitzwater, Jr., M.D., San Francisco
Gottlieb C. Friesinger, M.D., Nashville
Robert A. Frist, M.D., Nashville
Alan D. Glick, M.D., Nashville
Richard Gordon, M.D., Nashville
Susan L. Hill, M.D., Nashville
William S. Keane, M.D., Nashville
E. Ray Lowery, Jr., M.D., Nashville
William G. Sale, III, M.D., Nashville
Joseph J. Sannella, M.D., Nashville
David B. Todd, Jr., M.D., Nashville
Lloyd A. Walwyn, M.D., Nashville
Charles A. Wiggins, M.D., Clarksville

ROANE-ANDERSON COUNTY MEDICAL SOCIETY

Herbert J. Hostetler, M.D., Oak Ridge
James Michael Tozer, M.D., Harriman

SULLIVAN-JOHNSON COUNTY MEDICAL SOCIETY

David K. Garriott, M.D., Kingsport
William C. Griffin, Jr., M.D., Kingsport
C. Mack Patton, M.D., Kingsport

programs and news of medical societies

Marshall County Medical Society

The Marshall County Medical Society met on October 21 in the Conference Room of Community Hospital in Lewisburg. Dr. Lawrence Nickell, Radiologist and Roentgen Therapist from Columbia, spoke to the Society on "Cancer Management of the Cervix, Uterus and Breast."

It was pointed out that the Society was granted a charter in 1957 by the Tennessee Medical Association and that among those attending the October meeting

were the remaining four members of the original nine charter members, including Dr. Kenneth Brown, Dr. Hoyt Harris, Dr. Jack Phelps and Dr. Saxon Poarch.

Nashville Academy of Medicine and Davidson Medical Society

The Society met on November 12, at Baptist Hospital and heard an address by AMA Executive Vice-President, Dr. James H. Sammons. His discussion was focused on present AMA services and attitudes with particular reference to National Health Insurance, medical education, postgraduate education and physician contribution.

The Academy sponsored a Medicine and Religion Seminar on November 14 at West End United Methodist Church. The topic of the program was "Health Crises in the Family."

Roane-Anderson County Medical Society

The Society met on October 29 at the Holiday Inn in Oak Ridge. Dr. Marvin I. Gottlieb, Associate Professor of Pediatrics at the University of Tennessee Medical Units and Director of the Leigh Buring Memorial Clinic for Exceptional Children, delivered the Dwight Clark Memorial Lecture. His topic was "Learning Disorders—A Medical Problem?"

national news

THIS MONTH IN WASHINGTON (From Washington Office, AMA)

The American Medical Association is now in the process of reviewing and updating its position on national health insurance, Malcolm C. Todd, M.D., has told Washington groups.

"Our objective is to make the AMA's national health insurance proposal more flexible, while at the same time maintaining certain basic precepts," Dr. Todd said.

"If necessary, we may compromise on the method of financing we adopt. But we are not willing to fund national health insurance through an increase in Social Security taxes; nor are we willing to see the program administered by the Social Security Administration.

"We want a financing mechanism for comprehensive health insurance that will do the most at the least cost. This could involve:

- *Increase employer-employee contributions for private health insurance;
- *The use of general tax revenues;
- *Or, an individual tax credit to be applied toward full health care protection. This latter

method was, of course, the method employed in Mediredit.

"The important point is that we cannot countenance greater fiscal and bureaucratic authority for the Social Security Administration or an increase in the Social Security tax.

"Any payroll tax, whether collected under Social Security or not, constitutes the most insidious form of taxation that can be invoked by government. It is a totally regressive tax that weighs heavily on low and middle income workers and lightly on the affluent.

"Finally, the measure that emerges will provide comprehensive health care benefits as well as protection against the catastrophic costs of prolonged illness for every American," Dr. Todd said.

* * *

A batch of major health bills are hanging afire for the "lame duck" session of Congress starting Nov. 18. Comprehensive health planning bills have cleared Senate but not the House. Though no public utility-type regulation is in prospect, other measures strengthening government planning authority abound.

Health manpower legislation with provisions for federal service in shortage areas is through Senate. House action is expected shortly after Congress returns. There is a possibility that one or both may be stalled in conference as the Administration now wishes simple extension of present programs.

A health revenue sharing bill will be taken up again by a House-Senate conference. This measure extends state health block grants, community mental health centers, family planning, migrant health and neighborhood health center programs. It should secure Congressional enactment this year.

The Health Education and Welfare appropriations bill still has to be completed.

No chance is seen for passage of the Omnibus Drug amendments bill that would provide Medicare outpatient drug benefits, a Federal Formulary, and the Administration's low-cost drug plan for Medicare-Medicaid patients.

* * *

The Health Education and Welfare Department has issued final regulations on benefits and

structure of Health Maintenance Organizations, giving the green light to federal grants launching the program.

The regulations set forth the rules and restrictions and benefits that must be followed in order for organizations to qualify as HMO's and receive federal aid. The \$325 million HMO program was approved by Congress in 1973.

Grants can now be made among the 125 groups that have applied for funds to conduct feasibility studies, planning and development.

The HMO Act authorizes federal support for five years "to demonstrate more broadly the concept of organizations delivering comprehensive health care services on a prepaid basis." Last year Congress appropriated \$61 million. The Administration sought \$60 million this year, but the Senate approved only \$18 million because of a delay due to the development of the complicated regulations.

The regulations specify basic services to be provided in return for fixed payments made on a periodic basis without regard to the frequency, extent, or kind of services provided, with the payments set on a community rating system. These may be supplemented by what the regulations call "nominal copayments" limited under a variety of formulas.

Before the HMO program can be launched still more regulations will have to be completed. The most important is the statutory requirement that employers with more than 25 workers offer the employees the option of joining a qualified HMO if one is available. These proposed regulations are slated to be issued soon, but final ones are some months off.

Though suggestions were made to exempt HMO's from Professional Standards Review Organization (PSRO) authority, HEW rejected them, declaring that there is a need "to assure that suitable procedures are applied to HMO services to assure they conform to appropriate professional standards for the provision of health care applicable to other providers."

Basic HMO benefits must include:

- *physicians services (including consultant and referral services by a physician);
- *outpatient services and inpatient hospital services;
- *medically necessary outpatient and inpatient emergency health services;
- *short-term (not to exceed twenty visits), out-

patient evaluative and crisis intervention mental health services;

*medical treatment and referral services (including referral services to appropriate ancillary services) for the abuse of or addiction to alcohol and drugs;

*diagnostic laboratory and diagnostic and therapeutic radiologic services;

*home health services; and

*preventive health services (including voluntary family planning services, services for infertility, preventive dental care for children, and children's eye examinations conducted to determine the need for vision correction).

* * *

Physicians, patients and fellow workers have reacted favorably to the Physician Assistants (PA) employed in a pilot experiment by Kaiser Foundation Health Plan, according to a report on the program.

At present seven PA's are on duty at Kaiser. The first was hired in 1970, a graduate of the Duke University PA program and a former military corpsman.

There was concern by some physicians and administrators, but "the greatest resistance came from the nursing department," writes Kaiser official Paul Lairson, M.D., in *Inquiry*, the Blue Cross Association magazine.

As the nurses began to work with the PA and learned from experience that there was more of an "equal relationship" with him than with the physicians, they became a "traditional team," Dr. Lairson declared. Furthermore, "all but one of the physicians who worked in the clinic with the PA came to favor expanding the program," he said.

The PA saw approximately 20 patients per day at the Vancouver Washington clinic. He was given three physical examination appointments and the rest of his time was rapidly filled with the "treatment of relatively minor medical and surgical problems, whether by appointment or on a 'drop-in' basis." More severe or chronic problems were transferred to the internist or other specialist.

* * *

The Department of Health, Education and Welfare has announced that commencing with

the first of the new year the Medicare hospital deductible will jump to \$92. The present deductible is \$84.

HEW said that the \$92 deductible is equivalent to the average cost of one day of hospitalization. The increased payment was brought about by rising hospital costs, HEW said.

The Medicare law requires an annual review of hospital costs under Medicare and an adjustment of the portion of the bill for which a Medicare beneficiary is responsible, if the costs have risen substantially.

medical news in tennessee

Memphian Patents Plug for "Dry Eyes"

A Memphis ophthalmologist has developed and patented a plug that can be inserted in the eye to treat patients with "dry eyes" by blocking their tear flow.

Dr. Jerre Freeman, described his punctum plug recently at a meeting of the American Academy of Ophthalmology in Dallas.

The punctum plug is a tiny, cone-shaped device inserted in the punctual openings in the inner corners of the upper and lower lids. Dr. Freeman reports that closing the punctual openings helps the eye to preserve all three layers of the tear film and helps it to absorb medications.

Radiation Sickness Center to be Built at Oak Ridge

Construction has begun on a \$5.88 million radiation sickness research and treatment center.

The Atomic Energy Commission is building the facility as an addition to Oak Ridge Hospital. It will be operated by Oak Ridge Associated Universities, which conducts nuclear educational and research programs for the AEC.

The commission said the center will provide "a capability for the treatment of radiation accident cases, should the need arise, in the southeastern United States."

Ground Broken for Addition at Moccasin Bend Facility

Mental health officials have broken ground at Moccasin Bend Hospital for construction of an \$843,000 Mental Health Center to provide outpatient service to residents in six counties.

"We are officially launching a very new and

existing program," said Dr. C. Richard Treadway, commissioner of the Tennessee Department of Mental Health.

The center, a single-story structure expected to be completed by September, 1975, will serve people in north Hamilton, Marion, Grundy, Bledsoe, Sequatchie and Rhea Counties. It will house the former outpatient department of Moccasin Bend Psychiatric Hospital.

Cincinnati Professor Presents Goodpasture Lecture at VU

Dr. Edward A. Gall, professor of pathology at the University of Cincinnati School of Medicine, presented the 1974 Ernest W. Goodpasture Lecture on Oct. 17 at Vanderbilt University.

The lecture was entitled "The Goal of Medical Education: Physician? Health Care Purveyor? Handyman?"

Dr. Goodpasture, in whose memory the lecture series is named, was a recognized pioneer of his time in virus research, an internationally known medical scientist, a Vanderbilt pathology professor and department chairman, and a former dean of the Vanderbilt School of Medicine. He also served on the Board of Trust from 1955 to 1960, the year in which he died.

Dr. Gall has served the University of Cincinnati Medical Center for more than 23 years, not only as professor and department head but also as vice president and director. He has been editor of the *American Journal of Pathology* and president of many national pathology and oncology associations.

Dr. Rogers Gives Koenig Lectures

Dr. David E. Rogers, president of the Robert Wood Johnson Foundation and a former department chairman in the Vanderbilt School of Medicine, was the M. Glenn Koenig visiting professor of medicine at Vanderbilt, Nov. 14-15.

Named head of the country's second largest foundation in 1971, Rogers has had a distinguished career as a doctor, educator, and administrator and is a nationally recognized authority in health care delivery and the research and treatment of infectious diseases. His major lecture was on "Medical Academe and the Problems of Primary Care."

Friends and associates of the late Dr. M. Glenn Koenig established the visiting professorship in his memory as "an appropriate way to pay tribute to the contributions he made to the medical community of Nashville and to American medi-

cine." From 1960 until his death in 1972, Koenig was professor of medicine and head of the division of infectious diseases at Vanderbilt. He and Rogers were colleagues at the school.

Dr. Rogers was named professor of medicine and chairman of the department of medicine at Vanderbilt in 1959, a position he held until his appointment, in 1968, as vice president for medicine and dean of the medical faculty and director of the Johns Hopkins Hospital.

personal news

DR. CHARLES M. ALDERSON, Jackson, has been inducted into Fellowship in the American College of Surgeons. Other Tennessee physicians inducted include DR. WALTER CLAY CHAPMAN, JR., Greeneville, DRS. NICHOLAS G. FORLIDAS, BARRY PARKER NORTON, DAVID MEDFORD O'NEAL and PAUL CLAYTON THOMPSON, all of Chattanooga, DRS. WILLIAM KENNEDY and CALVIN MORGAN, JR., Johnson City, and DRS. FREDERICK KILLEFFER and JAMES LEWIS, both of Knoxville.

DR. JIM BRADSHAW, Lebanon, has been elected to the Board of the Wilson County Mental Health Center.

DR. JOHN C. BURCH, Nashville, recently delivered a paper entitled, "Estrogens in the Post-Menopause" during the International Health Foundation meeting in Geneva, Switzerland.

DR. BENJAMIN F. BYRD, JR., Nashville, has been installed as president-elect of the American Cancer Society.

DR. ELBERT C. CUNNINGHAM, Harriman, has been named a Fellow of the American Academy of Family Physicians. Other Tennessee physicians inducted were DR. WARREN C. RAMER, SR. and DR. CHARLES W. WHITE, both of Lexington.

DR. J. W. ERWIN, Blountville, has been made a life member in the Tennessee Public Health Association.

DR. W. G. FROST, Elizabethton, was honored recently by the staff of Carter County Memorial Hospital for his 50 years' service to the community. Also honored were DRS. E. L. CAUDILL, SR. and ELMER T. PEARSON, both of Elizabethton.

DR. MARVIN I. GOTTLIEB, Memphis, was a recent speaker at the Roane-Anderson County Medical Society meeting. Dr. Gottlieb spoke on "Learning Disabilities—a Medical Problem?"

DR. PHILLIP W. HAYES, Dickson, has been elected president of the Middle Tennessee Medical Association.

DR. ROBERT P. HORNSBY, Knoxville, has been elected chairman of the Clean Environment Council. Dr. Hornsby has also been appointed to the Health Education Task Force.

DR. R. H. HUTCHESON, Franklin, has received the

Distinguished Service Award from the Tennessee Public Health Association in recognition of exceptional contribution to the Tennessee Public Health Association.

DR. VICTOR H. KLEIN, JR., Knoxville, has been elected president-elect of the Tennessee Division of the American Cancer Society. DR. JAMES H. BARKER, Jackson, was elected vice-president of the west region.

DR. A. RAY MAYBERRY, Knoxville, has been named clinical director at Peninsula Psychiatric Center in Louisville.

DR. MERRILL F. NELSON, Chattanooga, was named "Boss of the Year" by the Chattanooga Chapter of the American Association of Medical Assistants.

DR. JOHN E. NEUMANN, Paris, has been elected president of the Greater Paris-Henry County Chamber of Commerce.

DR. WILLIAM A. POTTER, Memphis, directed a workshop for members of the Upper East Chapter of the Tennessee Society of Respiratory Therapists in Johnson City.

DR. WILLIAM T. SATTERFIELD, JR., Memphis, has been awarded the Rotary Club's award for outstanding service to the handicapped.

announcements

CALENDAR OF MEETINGS

NATIONAL

1975

Jan. 31- Feb. 2	Southern Radiological Conference, Grand Hotel, Point Clear, AL
Feb. 10-13	American College of Cardiology, Houston
Feb. 12-15	Southern Neurosurgical Society, Hilton Palacio del Rio, San Antonio
Feb. 15-19	American Academy of Allergy, Town and Country, San Diego
Feb. 21-28	American Society of Clinical Pathologists, International and Convention Center, Las Vegas
March 1-6	American Academy of Orthopaedic Surgeons, Brooks Hall and Civic Auditorium, San Francisco
March 6	American Orthopaedic Society for Sports Medicine, San Francisco
April 7-11	American College of Physicians, San Francisco
Feb. 17-20	Doctors and Nurses Meeting, <i>Southeastern Surgical Congress</i> , 43rd Annual Assembly, Hyatt Regency Atlanta Hotel, Atlanta

STATE

April 9-12	Tennessee Medical Association, Annual Meeting, Read House, Chattanooga
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continuing education opportunities

The continuing medical education accreditation program of TMA has full approval by AMA's Council on Medical Education. If the continuing medical education program of your hospital or medical society is accredited by TMA's committee, you may receive for your attendance at its functions Category 1 credit for the AMA Physician's Recognition Award. If you wish information as to how your hospital or society may receive accreditation, write: Director of Continuing Medical Education, Tennessee Medical Association, 112 Louise Avenue, Nashville, Tennessee 37203.

Clinical Training Program For Practicing Physicians

Opportunities for advanced clinical education for physicians in family practice and in various subspecialties have been developed by the School of Medicine and the Division of Continuing Education of Vanderbilt University. The practicing physician, with the guidance of the participating department chairman, can plan an individualized program of one to four weeks to meet recognized needs and interests. The experience will include contact with patients, discussion with clinical and academic faculty, conferences, ward rounds, learning individual procedures, observing new surgical techniques, and access to excellent library resources. Experience in more than one discipline may be included.

Participating Departments and Divisions

Anesthesiology	Bradley E. Smith, M.D.
Medicine	Grant W. Liddle, M.D.
Cardiology	Gottlieb C. Friesinger, III, M.D.
Chest Diseases	James D. Snell, M.D.
Dermatology	Robert N. Buchanan, Jr., M.D.
Endocrinology & Diabetes	Grant W. Liddle, M.D.
Gastroenterology	Steven Schenker, M.D.
Hematology	Sanford B. Krantz, M.D.
Infectious Diseases	Zell A. McGee, M.D.
Renal Diseases	H. Earl Ginn, M.D.
Clinical Pharmacology	John A. Oates, M.D.
Neurology	Gerald M. Fenichel, M.D.
Obstetrics & Gynecology	John S. Zelenik, M.D.
Orthopaedics	Paul W. Griffin, M.D.
Pathology	William H. Hartmann, M.D.
Pediatrics	David T. Karzon, M.D.
Psychiatry	Marc H. Hollender, M.D.
Radiology	John R. Amberg, M.D.
Surgery	
General	H. William Scott, Jr., M.D.
Neurological	William F. Meacham, M.D.
Ophthalmology	James H. Elliott, M.D.

Oral	H. David Hall, D.M.D.
Pediatric	James A. O'Neill, M.D.
Plastic	John B. Lynch, M.D.
Thoracic & Cardiac	Harvey W. Bender, M.D.
Urology	Robert K. Rhamy, M.D.
Cancer Chemotherapy	Vernon H. Reynolds, M.D.

ELIGIBILITY: All licensed physicians are eligible.

ADMINISTRATIVE FEE: \$200.00 per week.

CREDIT: American Medical Association Physician's Recognition Award and American Academy of Family Physician's Continuing Education accreditation.

APPLICATION: For further information and application, contact:

Paul E. Slaton, M.D., Director, Continuing Education
305 Medical Arts Building
Nashville, TN 37212 Tel. 615-322-2716

The University of Tennessee College of Medicine Continuing Education Courses 1975

Feb. 19-20	Office Gynecology, U.T. Medical Units
Mar. 8-9	Obstetric Anesthesia, U.T. Medical Units
Mar. 9-12	Basic Principles of Rhinoplasty, U.T. Medical Units
Mar. 17-22	General Review Course, U.T. Medical Units
April 19-20	Pediatric Anesthesia, U.T. Medical Units
May 15-16	Office Orthopaedics, U.T. Medical Units
May 19-23	Intensive Review of the Science of Anesthesiology, U.T. Medical Units
May 28-31	Clinical Electrocardiography, Paris Landing State Park Inn, Buchanan, Tennessee

University of Tennessee Clinical Education Center—Chattanooga Program Schedule Spring 1975

Feb. 6-7	Musculoskeletal Symposium
Feb. 20-21	Asthma Today: An Update
March 6-7	Emergency Medicine
March 20-21	Recent Advances In Clinical Pediatrics
April 21-22	Electro-Cardiography for Primary Physicians
April 23	Vector-Cardiography
April 24-25	Echo-Cardiography, Phono-Cardiography, Pulse Training
May 8-9	Management of the Critical Surgery Patient
May 22-23	Drug Interactions
June 5-6	Infectious Disease

Courses approved for Category I credit for AMA Physician's Recognition Award.

For information, contact LeRoy J. Pickles, Director of Continuing Medical Education, Suite 416—Franklin Building, Eastgate Center, Chattanooga, Tennessee 37411.

Audio-Cassette Directory Available

To aid the physician in locating little-known but often useful programs, Cassette Information Services of Los Angeles has published its 1974 Directory of Spoken-Voice Audio-Cassettes.

The CIS Directory is not a catalog, but rather a compendium of program titles and subjects that can be found on audio-cassettes, a brief description of each (including price), and from whom the tape or more information may be obtained. The directory itself is available for \$5.00 from Cassette Information Services, Box 17727, Los Angeles, CA 90057.

The American College of Physicians Postgraduate Courses

THE RESPECTIVE ROLES OF MEDICAL AND SURGICAL TREATMENT IN CARDIAC DISEASE IN THE ADULT. University of California at Los Angeles and Cedar-Sinai Medical Center, Century Plaza Hotel, Los Angeles, CA, Jan. 16-18.

ADVANCES IN NEUROLOGY, Virginia Mason Medical Center, Seattle, WA, Jan. 22-24.

GASTROENTEROLOGY—SELECTED TOPICS OF CURRENT INTEREST, Alton Ochsner Medical Foundation, New Orleans, LA, Jan. 27-29.

CURRENT CONCEPTS IN ONCOLOGY, University of Michigan Medical Center, Towsley Center for Continuing Medical Education, Ann Arbor, MI, Feb. 3-7.

INFECTIOUS DISEASES, Stanford University Medical Center, Stanford, CA, to be held at Squaw Valley, Olympic Valley, CA, Feb. 10-14.

CARDIOVASCULAR PROBLEMS: PATHOPHYSIOLOGICAL AND CLINICAL CONSIDERATIONS. University of Texas Southwestern Medical School, Dallas, TX, Mar. 6-8.

CARDIOLOGY, 1975—TOPICS OF CURRENT INTEREST, Mount Sinai School of Medicine, NY, Mar. 10-14.

TUMORS AND INFLAMMATORY LESIONS OF THE SKIN, Duke University Medical Center, Durham, NC, Mar. 14-16.

RECENT ADVANCES IN INTERNAL MEDICINE: AN OVERVIEW OF THE PAST FIVE YEARS, University of Alabama School of Medicine, Parliament House Motor Hotel, Birmingham, ALA, Mar. 17-21.

Info: Registrar, Postgraduate Courses, ACP, 4200 Pine Street, Philadelphia, PA 19104.

Therapy of Adult Heart Disease

The American College of Physicians (ACP) will sponsor a three-day course entitled "Medical and Sur-

gical Therapy of Adult Heart Disease" on January 16-18, 1975, in Los Angeles, California. The course, held in conjunction with the University of California at Los Angeles and Cedars-Sinai Medical Center, will take place at the Century Plaza Hotel.

The course will emphasize the indications for differing forms of medical and surgical treatment for the variety of heart disease that occurs predominantly in the adult. It will deal with valvular and coronary heart disease, as well as pericardial and myocardial disease.

Info: Registrar, Postgraduate Courses, ACP
4200 Pine Street
Philadelphia, Pa. 19104.

Advances in Neurology

The American College of Physicians (ACP) will sponsor a three-day postgraduate course entitled "Advances in Neurology" on January 22-24, 1975, in Seattle, Wash. The course, held in conjunction with the Virginia Mason Medical Center, will take place at the Center's Auditorium.

The course is planned to provide a problem-oriented approach to converting a symptomatic problem into a specific diagnosis in the management of neurological disorders by the practicing physician. It will utilize panels and lectures to cover the selection and interpretation of current diagnostic modalities and to discuss new therapeutic agents.

Info: Registrar, Postgraduate Courses, ACP
4200 Pine Street
Philadelphia, Pa. 19104.

Topics in Gastroenterology

The American College of Physicians (ACP) will sponsor a three-day course entitled "Selected Topics in Gastroenterology" on January 27-29, 1975, in New Orleans, La. The course, held in conjunction with the Ochsner Medical Center, will take place at the Ochsner Foundation Hospital's Monroe Hall.

The course is designed to relate recent knowledge of physiologic mechanisms in gastroenterology to the management of disease. The sessions will be informal, with ample time for questions and discussion.

Info: Registrar, Postgraduate Courses, ACP
4200 Pine Street
Philadelphia, Pa. 19104.

Current Concepts in Oncology

The American College of Physicians (ACP) will sponsor a five-day postgraduate course entitled "Current Concepts in Oncology" on February 3-7, 1975, in Ann Arbor, Michigan. The course, held in conjunction with the University of Michigan Medical Center, will take place at the University's Townsley Center for Continuing Medical Education.

The course is aimed at the physician who has a special interest in the diagnosis and care of patients with tumors. The morning sessions will be oriented towards the basic science of oncology (the study of

tumors); afternoons are clinically oriented towards diagnostic techniques and management problems.

Info: Registrar, Postgraduate Courses, ACP
4200 Pine Street
Philadelphia, Pa. 19104.

Post-Graduate Course in Infectious Diseases

The American College of Physicians (ACP) will sponsor a five-day postgraduate course entitled "Infectious Diseases" on February 10-14, 1975, in Olympic Valley, Calif. The course, held in conjunction with the Stanford University School of Medicine, will take place at the Squaw Valley Convention Center.

The course is designed to provide a thorough and up-to-date review of topics in infectious diseases of special interest in internal medicine. Particular emphasis will be on newer concepts of diagnosis, treatment and prevention of infectious diseases and to the clinical relevance of the recent advances in our knowledge of host defense mechanisms against infection.

Info: Registrar, Postgraduate Courses, ACP
4200 Pine Street
Philadelphia, Pa. 19104.

International Academy of Pathology U.S.—Canadian Division

The 64th Annual Meeting will be held at the Marriott Hotel in New Orleans, Louisiana, from Tuesday evening, March 4, through Saturday, March 8, 1975.

Eighty scientific papers, 6 pathology specialty conferences, 48 Short Courses, a seminar on Techniques for Tissue Pathology, a special course on Electron-microscopy, and the Long Course on Diseases of Bones and Joints directed by Dr. Lauren V. Ackerman and Dr. Harlan J. Spjut will be given during the meeting.

Further information about the meeting may be obtained from Dr. Leland D. Stoddard, Secretary-Treasurer, U.S.-Canadian Division, International Academy of Pathology, Department of Pathology, Medical College of Georgia, Augusta, Georgia 30902. Telephone 404/722-1111.

Courses on Diseases of Bones and Joints

A comprehensive program on Diseases of Bones and Joints will be given by a faculty of sixteen authorities at the Annual Meeting of the U.S.-Canadian Division of the International Academy of Pathology in New Orleans, Louisiana. The course will be given Thursday March 6, 1975 at the Marriott Hotel.

Further information may be obtained from Mrs. J. Preston, IAP Registrar, Armed Forces Institute of Pathology, Room 4090, Washington, D.C., 20306. Telephone 202/576-2969.

COURSE IN NEUROLOGY March 24 through 27, 1975

The Department of Otolaryngology of the Abraham Lincoln School of Medicine and the University of Illinois Hospital Eye and Ear Infirmary, University of Illinois at the Medical Center, will conduct a continuing education course in Neurology, March 24 through 27, 1975. This four day intensive course will offer a

didactic and practical review of clinical neurotology under the direction of Nicholas Torok, M.D. It will be held at the Eye and Ear Infirmary and will include basic vestibular physiology and pathophysiology, commonly used testing methods applied in functional examination of the vestibular organ.

In addition, various forms of caloric testing procedures will be demonstrated using nystagmography, reading and evaluation of the test results, particularly the nystagmogram, and correlation with audiometric and neurologic findings, final neurotological diagnosis, management and treatment. Patients will be tested by participants and the history, symptoms and test results will be discussed in informal conferences.

Enrollment is limited to fifteen. For application forms write to the Department of Otolaryngology, 1855 West Taylor Street, Chicago, Ill. 60612

COURSE IN LARYNGOLOGY AND BRONCHESOPHAGOLOGY March 17 through 22, 1975

The Department of Otolaryngology, Abraham Lincoln School of Medicine, University of Illinois and the Eye and Ear Infirmary of the University of Illinois Hospital, will conduct a continuing education course in Laryngology and Bronchoesophagology March 17 through 25, 1975. The course is limited to twenty physicians and will be under the direction of Paul H. Holinger, M.D. It will be held largely at the Eye and Ear Infirmary, 1855 West Taylor Street, Chicago, and will include visits to a number of other Chicago hospitals. Instruction will be provided by means of animal demonstrations and practice in bronchoscopy and esophagoscopy, diagnostic and surgical clinics, as well as didactic lectures.

Interested physicians will please write directly to the Department of Otolaryngology, Eye and Ear Infirmary, 1855 West Taylor Street, Chicago, Illinois 60612.

COURSE IN POSTGRADUATE GASTROENTEROLOGY Aboard S.S. Statendam March 3-13, 1975

The Annual Course in Postgraduate Gastroenterology of the American College of Gastroenterology will be given aboard the S.S. Statendam, which sails from Port Everglades, Fla., on March 3, 1975. Five sessions will be held aboard ship, on the mornings of March 4, 5, 6, 11 and 13, with small Round-Table discussions on four afternoons, for a total of 18 hours of credit.

The Course will be open to members and non-members of the College.

MEMBERS OF THE COLLEGE WILL RECEIVE FORMAL CREDIT FOR ADVANCEMENT TO ASSOCIATE FELLOWSHIP AND FELLOWSHIP.

THIS COURSE HAS RECEIVED CATEGORY "A" APPROVAL AND ACCREDITATION OF THE COUNCIL ON MEDICAL EDUCATION OF THE AMERICAN MEDICAL ASSOCIATION.

For further information and membership application, write to the Secretary-General, American College of Gastroenterology, 299 Broadway, New York, N.Y. 10007.

**University of Kentucky Medical Center
Lexington, Kentucky**

**ENDOCRINOLOGY FOR THE
PRACTICING PHYSICIAN**

December 20-21, 1974

Registration Fee: \$75.

For further information about the above, contact:

Frank R. Lemon, M.D.
Continuing Education
College of Medicine
University of Kentucky
Lexington, Kentucky 40506

**Recent Advances in Allergy
Symposium Scheduled in April**

A four-day medical symposium entitled, "Recent Advances in Allergy" will be held at the famous resort, THE HOMESTEAD, in Hot Springs, Va., from April 21-24, 1975. The medical seminars will be held from 8:00 a.m. until 10:00 a.m. A wide variety of subject material will be presented by outstanding specialists, that will be of interest to all physicians.

For further information contact Claude A. Frazier, M.D., 4-C Doctors Park, Asheville, N.C. 28801.

**The Second Annual Hair Transplant
Symposium and Workshop**

The American Society for Dermatologic Surgery and The American Academy of Facial Plastic and Reconstructive Surgery, Inc., are co-sponsoring this conference which is designed to offer an opportunity for the exchange of ideas among various disciplines and to present the latest advances in techniques on hair transplantation. It will be held February 14th and 15th, 1975, at the Stough Dermatology and Cutaneous Surgery Clinic, P. A., Doctors Park, Hot Springs, Arkansas 71901. Attendance will be limited. Faculty will include: dermatologists, otolaryngologists, regional and general plastic surgeons. For further information, contact: D. B. Stough, III, M.D., Program Director. (Address as listed above).

**Southeastern Surgical Congress
43rd Annual Assembly**

Doctors and Nurses Meeting
February 17-20, 1975
Hyatt Regency Atlanta Hotel
Atlanta, Georgia

Coinciding with the Annual Assembly, the SSC will initiate a series of postgraduate courses to be held each year.

Postgraduate Course
Southeastern Surgical Congress
"Cancer of the Breast"
February 16, 1975
Hyatt Regency Atlanta Hotel
Atlanta, Georgia

Arthritis Symposium

A five-day symposium on arthritis and related disorders will be held by New York University Post-Graduate Medical School from Feb. 24 to 28. The symposium is designed for physicians and researchers seeking detailed, up-to-date knowledge of arthritis, rheumatic fever, systemic lupus erythematosus and gout. Recent developments of particular note will be discussed in the session on "Inflammation and Complement" on Tuesday, Feb. 25, at 9 A.M.

A tuition fee of \$195 is payable in advance with an application for enrollment directed to the Office of the Recorder, Room 4-44-N, Arnold and Marie Schwartz Lecture Hall, New York University Post-Graduate Medical School, 550 First Avenue, New York, N.Y. 10016.

**The Postgraduate Medical Education
Committee of the American College of
Chest Physicians 1975
Postgraduate Programs**

The continuing education program for physicians sponsored by the American College of Chest Physicians has been accredited by the Council on Medical Education of the American Medical Association and is acceptable for credit toward the AMA Physician's Recognition Award.

For further information contact: Bradford W. Claxton, M.Ed., Director of Continuing Education, American College of Chest Physicians, 911 Busse Highway, Park Ridge, Illinois 60068.

1975

February 24-27

"Pediatric Cardiopulmonary Problems—Diagnosis and Management—Newborn to Young Adult"

Location: Snowmass, Aspen, Colorado

February 24-28

"The Diagnosis and Treatment of Acute and Chronic Respiratory Failure"

Location: Miami Beach, Florida

March 12-14

"Cardiology for the Practitioner"

Location: Warren, Vermont

April 2-4

"Occupational Pulmonary Diseases"

Location: Morgantown, West Virginia

April 30-May 2

"Pulmonary Disease: The Changing Scene"

Location: Toronto, Canada

June 23-25

"Critical Care—A Postgraduate Course for Nurses and Physicians"

Location: Nashville, Tennessee

**School of Medicine
Medical College of Georgia
Augusta, Georgia**

1975

CONTINUING MEDICAL EDUCATION

BASIC NEUROLOGY FOR THE PRACTITIONER
February 20-21, 1975

CLINICAL PSYCHIATRY
February 27-28, 1975

MEDICINE AND RELIGION
March 10, 1975

MAKING SURGICAL DECISIONS
March 13-14, 1975

GASTROINTESTINAL DISEASES
The Atlanta Marriott, Atlanta, Georgia
March 20-22, 1975

**INFECTIOUS DISEASES—DIAGNOSIS AND
MANAGEMENT**
April 3-4, 1975

RECENT ADVANCES IN OPHTHALMOLOGY
The Cloister, Sea Island, Georgia
May 19-21, 1975

INTERNAL MEDICINE
Buccaneer Motor Lodge, Jekyll Island, Georgia
June 12-14, 1975

PHYSICIANS CONTINUING EDUCATION SERIES
Dalton, Georgia
January 9, February 13, March 13, and April 3, 1975

PHYSICIANS CONTINUING EDUCATION SERIES
Dublin, Georgia
January 28, February 25, and March 25, 1975

Contact: Division of Continuing Education
Medical College of Georgia
Augusta, Georgia 30902

Cancer Information

D-I-A-L A-C-C-E-S-S S-Y-S-T-E-M

WHAT? A valuable cancer education service through toll-free telephone calls that bring the most recent diagnostic and therapeutic information on specific neoplastic disease problems.

WHERE? In the Southern Medical Association area through co-sponsorship of The University of Texas System Cancer Center.

WHEN? Monday-Friday, 8:00 a.m. to 7:00 p.m., CST; Saturday, 8:00 a.m. to 11:00 a.m., CST.

Dial 1-800-231-6970 for list of specific topics, and procedures:

Write: Southern Medical Association
Cancer Information Center
2601 Highland Avenue
Birmingham, Alabama 35205

Ask for *DIAL ACCESS SYSTEM* catalogue.

**National Conference on Advances
In Cancer Management**

**AMERICAN CANCER SOCIETY—NATIONAL
CANCER INSTITUTE
DETECTION AND DIAGNOSIS**

May 1-3, 1975

The Denver Hilton—Denver, Colorado

These professional educational conferences will be acceptable for Credit Hours in Category I for the Physician's Recognition Award of the American Medical Association and for Elective Hours by the American Academy of Family Physicians.

(Sessions are open to all members and students of the medical and dental professions.)

**University of Miami School of Medicine
CME Courses**

**HUMAN DISEASE RELATED TO FOOD
AND CHEMICAL SENSITIVITY**

January 29-31, 1975

Americana Hotel, Bal Harbour, Florida

\$150 physicians in practice; \$75 physicians in training;
\$100 Nurses

**DYNAMICS OF PROGRESSIVE
NEPHROPATHIES—THEORETICAL AND
PRACTICAL ASPECTS**

January 2-7, 1975

Americana Hotel, Bal Harbour, Florida

Physicians in Practice, \$175; Physicians in Training, \$75
with letter from Chief of Service; Nurses, \$100
23, Category I, AMA Accredited

**HYPERTENSION, DIABETES & HYPERLIPIDEMIA
IN CHILDHOOD AND VASCULAR DISEASE
IN THE ADULT**

Department of Pediatrics, University of Miami
School of Medicine

March 11-14, 1975

Americana Hotel, Bal Harbour, Florida

\$150 Physicians in Practice; \$50 Physician in Training;
\$50 Nurses

Sidney Blumenthal, M.D., Professor of Pediatrics

**Pediatric Behavior Management Conference
February 21-22, 1975**

Topics covered include toilet training and eliminative disorders, emotional and behavioral problems, and behavioral aspects of psychophysiological disorders in childhood. The emphasis will be on a social learning approach and the cooperation of Pediatricians and Behavioral Scientists in treatment.

Write: Division of Continuing Medical Education
University of Miami School of Medicine
P.O. Box 520875 Biscayne Annex
Miami, Fla. 33152

Oak Ridge Hospital Ventilatory Problems Workshop

January 25, 1975

Holiday Inn, Oak Ridge, Tennessee, 9 a.m.-5:30 p.m.
For further information please contact:

Doris Croley
Education Director
125 W. Tennessee Avenue
Oak Ridge Hospital of the United Methodist Church
Oak Ridge, Tennessee 37830

a refresher course with independent diagnostic, nuclear medicine and therapy sessions. Previewed instructive cases, illustrating these topics, will be presented for open discussion in the afternoons.

Further information may be obtained from Maurice O'Connor, M.D., Conference Director, Division of Radiology, Denver General Hospital, Denver, Colorado 80204.

Fifth Annual Aspen Radiology Conference

The Fifth Annual Aspen Radiology Conference will be held March 3-7, 1975, at the Aspen Institute for Humanistic Studies, Aspen, Colorado. The Conference is designed for physicians and scientists interested in diagnostic radiology, nuclear medicine and radiation therapy and will explore the impact of clinical and technological advances on radiologic practice.

The topics for discussions will include advances in bone, vascular, gastrointestinal, and neuroradiology involving a triradiological approach. Each morning will survey the advances in a single radiology subdivision as

FOR SALE

Kingsport Medical practice for sale in the mountainous and picturesque area of upper East Tennessee. Suited for pediatrics, but not necessary. Office space, furniture, equipment etc., included. Please contact Mrs. J. Sam Brown, Blackberry Hill, Kingsport, Tennessee 37664. Phone (615) 247-7652.

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President's Page . . .

(Continued from page 17)

and data reporting system. The Foundation is governed by a Board of Physicians elected by the physicians of this State. If it fails to survive because of bickering between staff members and hospital administrators, both goaded by insurers who would like to operate the system, the next PSRO organization may not have your friends and associates as the Board of Directors. Think about it.

Yours truly,



President

Increasing Reading Efficiency

Elizabeth A. Smith, Ph.D.; Grant Taylor, M.D.

Reading is one of the major ways of obtaining information. Faced with heavy work schedules, unpredictable and irregular opportunities for reading, and the steadily increasing amount of medical literature, we must develop an efficient system which maximizes time spent in reading and increases comprehension and retention.

We all possess the ability to improve our reading skills. Our common goal is to be more efficient in our practice, and to increase our effectiveness in dealing with patient problems. First, we must be aware of factors which lower reading rates and decrease efficiency. Second, we must be motivated to analyze reading techniques and then determine whether we need to change our reading style. Third, we must be motivated to change or modify our techniques of reading.

This article discusses factors which influence reading rate, and suggests ways of increasing reading speed and reading effectiveness.

Reading Rate

Critical factors adversely influencing reading rate are faulty eye movements, tendency to vocalize silently, and inflexible reading style.

Although there are wide differences in individual reading rates, the average reading rate of well educated adults is about 250 words per minute.¹ Approximately 15% of the adults read 165 or fewer words per minute. The average speaking rate is about 160 words per minute. Therefore, these adults are reading at speeds which fail to exceed the rate of speech. There may be many physical and psychological reasons for these low reading rates. However, the factors most commonly considered to decrease reading rate are discussed here.

Faulty Eye Movements

The eye should move from left to right and observe the leftmost part of the word first. There should be a systematic, left-to-right progression across the line. The eye should move "by bounds," halting at successive vantage points to take in phrases, clauses, or even short sentences at a glance. The difference between rapid and

slow reading is often due to the frequency and duration of such halts.

Silent Vocalizations

Slow readers often vocalize silently, or resort to "inner speech." When they read to themselves, they form letters with their lips. These silent vocalizations require a considerable amount of unconscious mental effort and also lower reading speed. Rapid readers reduce "inner speech" to a minimum, and readily translate the printed word into thought. The tendency to silently vocalize while reading should be overcome.

Flexible Reading Style

Because of different reading rates and highly individualized reading styles, it is necessary to develop a flexible reading style. The good reader adjusts his style of reading to suit the complexity and content of the material, and thus covers more ground with less "mental gasoline."

Reading styles commonly recognized by educators² are:

1. *Skimming* to obtain the general idea of an article, to find a reference, locate new material or answer questions.
2. *Rapid reading* to review familiar material or get information for temporary use.
3. *Normal reading* to note details, to solve a problem, or to read material of average difficulty.
4. *Careful reading* to study certain subject matter, to evaluate material, to get details in sequence, or to outline or summarize material.

Increasing Reading Rate

After brief periods of training, adults are often able to double their reading speed.^{1,3} Reading rate may be increased by applying some of the following basic principles:

1. Cultivate the knack of shifting gears according to the character of the reading. Skim the unimportant portions of a text, and carefully read the important parts. The first law of skillful reading is merely an application of the law of relative importance. First perceive the total offerings of the printed matter, then go into details. Read wholes, not parts. Read sentences, not words. Read for the broadest meanings first, then for details later if necessary.
2. Do not take elaborate notes while you read, as this is an inefficient habit. Read first, and then reflect. If you do not clearly retain the gist of what you have read, go back over the material and take notes on the things you have failed to

remember. Do not stop reading to copy valuable material. Make a mark in the margin of the page and come back to it after you have finished reading, and then copy it. Underlining important statements as you read is a good practice. Then you can refer to these statements later and you will also have saved the time required to take and classify notes.

3. Read straight ahead. Do not stop unless you lose the main line of thought. Never mind the obscurity of details.

4. Try to minimize the number of stops or eye fixations in each line. Establish a regular rhythm of eye movements adapted to the length of the line and the subject matter you are reading. Do not allow the eye to break its forward sweep by wandering back in retrogressive movements to pick up something you think you have missed.

5. Force yourself to read more rapidly than feels comfortable. You will be bothered at first by not grasping the subject matter as well as you feel you should, but speed will increase with practice.

6. When reading, give careful consideration to such factors as posture, illumination, ventilation of the room, presence of conditions which may distract, and the condition of the mind and body. Your mind will not be in a receptive mood immediately after a heavy meal, or if your body is fatigued. Periods of reading or study should be alternated with periods of mental and physical relaxation or with periods of outdoor physical exercise.

Increasing Reading Effectiveness

An analytical or problem-oriented approach exhibited daily in the practice of medicine can be applied to the reading of medical literature. Such a scientific approach is designed to reinforce the skills of critical thinking, or problem solving.⁴ If certain of the following proposed methods can be applied to your current reading techniques, reading effectiveness should be enhanced. However, the methods you are already using, or may develop through experimentation, may be preferable to this system. This system, which is presented only as a guide, is most appropriate for the reading of medical journals.

1. Select journals containing information which will answer the majority of important patient problems you are dealing with. The number of journals read regularly may range from three to ten.

2. Carefully study the format and content of

each journal read until you develop a system for reading articles differing in content and complexity. At first, you may wish to write brief notes on these procedures. However, with periods of practice, you will soon commit this system to memory, and it will become an integral part of your reading style.

3. Select relevant articles from the table of contents. Assign a priority to each article. Read the most important article first.

4. Read the summary if there is one, and/or read the first paragraph of the article and the first and last sentences of each paragraph. These sections contain the majority of the factual information. *Patient Care*, for example, has express stops.

5. Spend enough time examining figures and tables so that you can interpret them and also make conclusions based on the data.

6. Scan the article, and underline important parts or make notes in the margins.

7. When you have finished reading the article, reread underlined material and/or notes.

8. Make notes on index cards using any intelligible technique. Such notes, when filed under area of interest or content, make excellent references, or serve as an outline of the article. This reference file may also serve as a data base of patient problems. Index cards can be color coded according to journal title or content area.

9. Make a mental outline of relevant information. Contrast this new information with what you already know, and assimilate it into your store of knowledge.

10. Commit to memory facts and concepts appropriate to your needs.

11. After you have read an article, analyze the procedures used and eliminate from your own system or from this basic system any steps unnecessary to your effective reading.

If you commonly clip important articles from journals, you may wish to file them by subject. The current *Index Medicus* list of subject headings is available from The Superintendent of Documents, Government Printing Office, Washington, D.C. 20402. This listing costs \$5.50.

Possible solutions to the reading dilemma faced by the Physician have recently been published.⁵ A system of identifying continuing education needs and tying journal to this system has been proposed.⁶ This system outlines a method of using patient problems as the main guide to reading.

The system proposed by Schmidt, Castle, and

Wilson³ presents guides for the systematic selection of journals which meet the daily demands of practice and enhance clinical skills. These authors describe how the general principles for improving reading speed and comprehension can be applied to reading the *Journal of the American Medical Association*, *Emergency Medicine*, *Family Physician*, and *Patient Care*.

One valuable reference which will not only guide your reading but also serve as an excellent resource is the "Bibliography of Medical Reviews." This bibliography, which has both a subject and an author index, is published in each monthly issue of *Index Medicus*. Only articles which are defined by the National Library of Medicine as being well documented surveys of the recent biomedical literature are included. The 1966-1970 listings can be obtained from The Superintendent of Documents for \$6.75.

The mental discipline and dedication to study which permeated our formal education can be revitalized and applied to reading. It is definitely possible to increase reading rate and reading efficiency. Just as working long hours, or engaging

in our favorite activity such as jogging, golfing, or sailing has become a habit, reading may similarly become a very constructive and professionally rewarding habit.

References

1. Harris, AJ: How to Increase Reading Ability. New York, Longmans, Green and Co., 1956.
2. Yoakam, TR: Basal Reading Instruction. New York, McGraw-Hill Book Co., 1955, p. 219.
3. Schmidt, DL, Castle, CH, Wilson, WM: Keeping Up With The Journals. *Rocky Mt Med J*, 70:51-54, 1973.
4. Aylesworth, TG, Reagan, GM: Teaching for Thinking. New York, Garden City, Doubleday and Co., Inc., 1969.
5. A Strategy for More Effective Reading. (Editorial) *Patient Care* (Sept. 1) 1973, p. 86-89, 91-93, 97-100, 106-107.
6. A Working Model for Your Continuing Education. (Editorial) *Patient Care* (May 17) 1973, p. 5.8.

Dr. Smith, Assistant Professor of Psychology; Dr. Taylor, Director, The University of Texas Health Science Center at Houston, Division of Continuing Education, 1100 Holcombe Blvd, Room 1110, Houston, Texas 77025.

Reprinted from *Texas Medicine*, Sept. 1974

* * *

Gun Safety

Some millions of American males—along with more than a few females—are taking to the woods this fall, firearms in hand, in search of live targets. These are the hunters among us.

The American Medical Association has a note of caution for those who are planning a fall safari into the fields and woods in search of birds, small animals, deer and other game.

Before you pull the trigger, know what you're firing at. The hunter who blazes away rapidly at everything that moves is a highly dangerous animal. His quarry might well be another hunter.

Each year several hundred hunters return from fall outings via hearse. Thousands of others return with a load of bird shot or a rifle bullet to be dug out by a doctor. Behind almost every hunting accident is the one cause: carelessness.

Never cross over or through a fence or climb a tree with a loaded gun. It might fall and discharge. Unload first and reload after crossing. Don't shoot at a hard, flat surface. Glancing bullets can carry long distances.

Even a small bore rifle has considerable range. Know where your bullet will stop before pulling the trigger.

Keep guns away from children. Never leave a weapon unattended without unloading it. Store guns and ammunition beyond reach of youngsters, preferably under lock and key.

Always carry a gun so that you can control the direction of the muzzle if you stumble. Keep the safety catch on until ready to shoot. Be sure the barrel is clear of mud, snow or other obstructions. A clogged barrel may burst.

Leave your liquor bottle at camp, and wait until you're through the day's hunting and the guns are unloaded to take that first drink.

There is a special hazard for rabbit hunters. This is rabbit fever—tularemia. It is a serious illness. Many wild rabbits are infected. One rule of thumb is—if the rabbit doesn't run briskly when he is flushed, leave him alone. The bunny who lopes slowly along, or stands and waits, likely is sick.

ANSWER TO THE COOPER REVIEW

(from page 1012)

1. (b) The major complications of congenitally bicuspid aortic valve are stenosis, incompetence, and bacterial endocarditis, in order of frequency. This type of valve is particularly prone to become calcified and consequently stenotic.

A non-calcified bicuspid valve is not intrinsically stenotic, in fact frequently a mild incompetence is present. The valve deformity and the traumatic influence of the mild regurgitation eventually lead to calcification with attendant stenosis and increase the tendency to develop bacterial endocarditis.

Unless endocarditis occurs the hemodynamics in young patients with bicuspid aortic valve are usually normal. Older patients with bicuspid aortic valves without endocarditis usually have severe aortic stenosis with mild to moderate regurgitation. Marked aortic regurgitation may occur in either age group as a consequence of bacterial endocarditis or prolapse of one of the leaflets into the left ventricle. Pure aortic regurgitation however, is not common. Heavy calcification of a bicuspid aortic valve is usually seen after 30 years of age and is almost always associated with stenosis of significant degree.

2. (1) (a) Although not emphasized in many standard neurologic textbooks, pain is a common complaint with idiopathic VII nerve palsy (Bell's Palsy). It often precedes the motor involvement and on occasion has led to unnecessary extraction of teeth. The pain is often rather sharp and may be quite severe and is centered behind or around the ear.
- (2) (a) *Prednisone, etc.* In the recent study the effects of Prednisone administered orally to 194 patients were compared with the outcome in 110 untreated patients. The treated group experienced fuller recovery and less severe complications. Forty (40) mgs of Prednisone daily for 4 days, tapered to 8 mgs daily in 8 days was the dosage used. Twenty-four per cent of the untreated group and none of the treated group had complete denervation. In a separate study comparing surgical decompression with no treatment, there appeared to be no advantage for surgical decompression after the first week of paralysis. The use of surgical decompression in the acute phase is more controversial but enthusiasm for it seems to be waning. Megavitamin therapy has not proven to be effective in the treatment of Bell's palsy.

References

Prednisone Treatment for Idiopathic Facial Paralysis
—New England Journal of Medicine, December, 1972.

Journal Laryngology, Otolaryngology—May, 1974.

- (3) (c) Since Prednisone is currently being used for the treatment of idiopathic VII nerve palsy in the acute phase, it is necessary to establish baseline fasting and postprandial blood sugars. A peripheral VII nerve palsy can be the initial and sole manifestation of diabetes and all patients with an apparent idiopathic peripheral VII palsy should be evaluated for diabetes.
3. (c) A majority of patients with adenocarcinoma of the colon show an elevated plasma carcinoembryonic antigen (CEA) concentration (above 5 ng/ml). In addition, the proportion of positive tests is roughly related to the extent of the tumor—58% positive when the tumor is limited to the bowel wall, 68% when the tumor has spread to the serosa but without involvement of lymph nodes, 71% when the tumor has spread to the local regional lymph nodes and 81% when distant metastases have occurred.

The test lacks sufficient sensitivity and specificity for use as a screening test for adenocarcinoma of the colon or malignancy in general. At least 19% of patients with far-advanced metastatic adenocarcinoma of the colon will show normal plasma CEA levels, and this false negative rate reaches 42% when the tumor is limited to the bowel wall. If one relies upon the CEA level to detect colonic carcinoma in its most curable stage, he will miss almost half of the cases. Thus a negative result (plasma level less than 5 ng/ml) does not exclude colonic carcinoma (lack of sensitivity). In addition, elevated CEA levels have been found in heavy smokers without malignancy, liver disease, ulcerative colitis, regional ileitis, pancreatitis, pulmonary emphysema and chronic bronchitis (lack of specificity). Therefore, the use of the CEA test for the detection or confirmation of malignancy should be considered largely a research tool of little or no benefit to the individual patient.

The greatest demonstrated value of the plasma CEA determination is for the postoperative follow-up of patients after colonic resection for adenocarcinoma. A level above 5 ng/ml at least four weeks after surgery is highly suggestive of residual or recurrent tumor. A second operation may be indicated if two tests performed after "complete" tumor resection show a rising level of plasma CEA, to permit possible resection of a local tumor recurrence or to demonstrate the need for chemotherapy before recurrence would otherwise be clinically apparent.

References

- Booth, SN, et al: *GUT*, 14:794, 1973.
Costanza, ME, et al: *Cancer*, 33:583, 1974.
Dhar, P, et al: *JAMA*, 221:31, 1972.
Laurence, DJR, et al: *Brit Med J*, 3:605, 1972.
Mach, JP, et al: *Lancet*, 2:535, 1974.
Rule, AH, *New Eng J Med*, 287:24, 1972.

The Upper Functional G.I. Disorder

The Pseudo-ulcer



The Placement Service of the Tennessee Medical Association is designed to assist both physicians and communities and is offered as a public service. Further information is available from the Placement Service Office, 112 Louise Avenue, Nashville, Tennessee 37203 —Phone 615/327-1451.

LOCATIONS WANTED

FAMILY PHYSICIAN, age 64, graduate of Tulane School of Medicine in 1934, desires clinical or industrial practice in Tennessee within 75 mile radius of large city. Presently in solo practice. Married. Available within short time after agreement. LW-849

GENERAL SURGEON, age 35, graduate of Far Eastern University College of Medicine, Philippines in 1962, desires associate or group practice in East Tennessee city with medium-sized population. Board eligible. Married. Available within short time after agreement. LW-865

PATHOLOGIST, age 38, graduate of Severance Medical College, Yonsei University, Korea in 1959 desires assistant or associate practice in Tennessee. Board eligible. Married. Available within short time after agreement. LW-914

ENT, age 40, graduate of Madras Medical College, India in 1957 desires assistant, associate or solo practice in Tennessee. Board certified. Married. Available within short time after agreement. LW-924

GENERAL SURGEON, age 37, graduate of Kurnool Medical School, India in 1961 desires assistant, associate or institutional practice in city with 10,000+ pop. Board eligible. Married. Available within short time after agreement. LW-928

OPHTHALMOLOGIST, age 40, graduate of University of Bern, Switzerland in 1961 desires associate or solo practice in metropolitan area of Tennessee. Board certified, internal medicine; board eligible, ophthalmology. Married. Available within short time after agreement. LW-937

ORTHOPAEDIC SURGEON, age 31, graduate of University of Iowa School of Medicine in 1968 desires associate practice in metropolitan area of Tennessee. Board eligible. Presently completing military service. Married. Available July, 1975. LW-946

UROLOGIST, age 30, graduate of Tulane University School of Medicine in 1970 desires associate, solo or assistance practice preferably in Middle Tennessee but would consider other locations. Presently completing residency. Married. Available July, 1975. LW-996

PATHOLOGIST, age 35, graduate of Medical College, Kerala University, Trivandrum, India in 1965 desires assistant, associate or institutional practice in or around Chattanooga or Cleveland. Presently completing residency. Married. Available within short time after agreement. LW-999

OPHTHALMOLOGIST, age 29, graduate of University of Virginia School of Medicine in 1970 desires associate or solo practice in East or Middle Tennessee city with 10,000-20,000 pop. Presently completing residency. Married. Available July, 1976. LW-1011

PHYSICIANS WANTED

FAMILY PHYSICIAN and **INTERNIST**, needed by five-man group in Waverly in Middle Tennessee. Ideal community, better than average income, compatible associates. Salary to start, with early partnership. PW-250

FAMILY PHYSICIAN, needed in Linden, a West Tennessee town with 5,000 population. Office space and equipment available. Only one physician presently in area. Progressive community surrounded by recreational activities. Good opportunity to work into partnership. PW-292

FAMILY PHYSICIAN, needed in Medina, a West Tennessee town of 800-1,000 located 7-14 miles of three hospitals in Jackson, Humboldt and Milan. Preferred age 30-40. Industrial area ideal for general practice. Office space available. PW-316

INTERNIST, needed as associate in clinical practice in Cleveland, an East Tennessee city of 70,000 total city and county pop. Professional corporation; new office presently under construction, excellent fringe benefits. Rapidly growing industrial community near well-equipped hospitals. Office space, equipment and housing available. PW-325

FAMILY PHYSICIAN or **INTERNIST**, needed in Lawrenceburg, a Middle Tennessee city with 10,000 population. Desired age 28-40. Office space and equipment available. Numerous recreational activities within community. Present 87-bed county hospital being replaced with 110-130 bed HCA hospital. Fifteen physicians in active practice in area. Office space and equipment available. PW-330

FAMILY PHYSICIAN, needed as replacement in Lexington, a progressive community in West Tennessee. Desired age up to 50 years. Excellent recreational facilities, along with major industries and modern public school system. PW-360

PHYSICIAN, needed in Kingsport to staff indigent outpatient clinic in 467-bed hospital and see general medical and prenatal patients. Regular hours Monday through Friday. Guaranteed annual income on negotiable basis ranging from \$30,000 to \$40,000. PW-365

UROLOGIST, **OB-GYN** and **FAMILY PHYSICIAN**, needed in Union City, a West Tennessee city of 15,000. Age desired under 40. Office space and equipment available. Excellent living conditions, growing community and recreational facilities. PW-366

OTOLARYNGOLOGIST, needed for private practice in Morristown in East Tennessee. New, modern office facility custom-built to the needs of practice is available along with ownership provision open. Excellent opportunity for specialty practice. Two hospitals in area. Age desired 30-50. Excellent recreational facilities available. PW-399

OCCUPATIONAL MEDICINE, physician needed in Chattanooga to join two other physicians in large industrial plant practice. Company employs approximately 5,000 employees. Regular hours, competitive salary with fringe benefits. PW-402

1974 MEMBERS OF THE TENNESSEE MEDICAL ASSOCIATION

An alphabetical listing of members of The Tennessee Medical Association by County Medical Society is published as a service to the membership. The various membership categories are noted by special symbols. * denotes Veteran Status; ‡ denotes Post-Graduate Status; † denotes Military Status.

BEDFORD COUNTY MEDICAL SOCIETY

Shelbyville

W. L. Chambers
Albert L. Cooper
John S. Derryberry
Taylor Farrar
Joseph H. Feldhaus
Sue W. Johnson
Grace E. Moulder
Earl Rich
Aubrey T. Richards
B. Carl Rogers
C. T. Stubblefield
Sara Womack

BENTON-HUMPHREYS MEDICAL SOCIETY

Camden

W. H. Blackburn
R. I. Bourne, Jr.
Joe S. Butterworth

New Johnsonville

James J. Lawson

Waverly

Harold L. Blanton
Wallace J. McClure
Keith D. Peterson
Dorris A. Sanders
Joseph W. Stephens
Arthur W. Walker

BLOUNT COUNTY MEDICAL SOCIETY

Alcoa

J. S. Henderson, Jr.
Colin L. Kamperman
J. Thomas Mandrell

Louisville

Alex G. Chynnis
Cecil F. Chromat

Maryville

O. K. Agee
Billy H. Blanks
John A. Bollinger, Jr.
John H. Bowler
H. A. Callaway, Jr.
James M. Callaway
J. W. Christofferson
Mary D. Cragan
Clay Crowder
William C. Crowder
Lynn F. Curtis
William E. Elliot
Ted L. Flickinger
R. H. Haralson, Jr.
R. H. Haralson, III
C. N. Hatfield
Louis E. Haun
Paul W. Hoffmann
James T. Holder
Cecil B. Howard
John R. Huffman
Homer L. Isbell
Elgin P. Kintner
Sam S. Lambeth
Roy W. Laughmiller
Frank S. Lovingood
John F. Manning
Kenneth Marmion
Gordon McCall
David L. McCroskey
N. A. McKinnon, Jr.
Robert D. Mynatt
H. S. Nelson
M. D. Peterson
Jack Phelan
James N. Proffitt
Robert D. Proffitt
Bainard P. Ramsey
Robert W. Seaton
O. L. Simpson, Jr.
J. B. Smalley

H. T. Vandergriff
Lowell E. Vinsant
J. A. Yarborough

Rockford

Robert F. Leyen
Prescott, Arizona
Julian C. Lentz

BRADLEY COUNTY MEDICAL SOCIETY

Cleveland

Robert L. Allen
John M. Appling
Charles W. Arnold, Jr.
Marvin R. Batchelor
John M. Bryan
Glenn Byers
Chalmer Chastain
Robert H. Cofer
A. Estes Felker
Jack R. Free
C. Richard Hughes
Ivan C. Humphries
William W. Johnson
Frank K. Jones
Cecil H. Kimball
C. A. Kyle, Jr.
James C. Lowe
Joseph McCoin
Hayes Mitchell
Sam Monger, III
John Murphy
Fred A. Muths
John Parkinson
E. Harris Pierce
John Powell
William Proffitt
John A. Rogness
Charles Romaine
Fenton L. Scruggs
William R. Smith
W. C. Stanbery
Claud H. Taylor
James R. Thurman
James R. Van Arsdall
Gilbert A. Varnell

Copperhill

William O. Campbell
W. C. Zachary, Jr.

Ducktown

William R. Lee

BUFFALO RIVER VALLEY MEDICAL SOCIETY

Centerville

Parker D. Elrod
Bertie L. Holladay

Hohenwald

Veena Anand
Virender Anand
Harvey Anderson
Ivan Krohn

Jackson

T. James Humphreys

Linden

Robert Markman
Gordon H. Turner, Jr.

Parsons

Charles M. Alderson
Robert M. Fisher
Dennis A. Savoie

CAMPBELL COUNTY MEDICAL SOCIETY

Harrogate

George L. Day
Roy C. Ellis
Jesse L. Walker

Jellico

Charles A. Prater
Ned C. Watts

LaFollette

J. D. Crutchfield
M. L. Davis
James C. Farris
John C. Pryse
Roscoe C. Pryse
L. J. Seargeant
Burgin H. Wood

CHATTANOOGA-HAMILTON COUNTY MEDICAL SOCIETY

Chattanooga

Jerome H. Abramson
Chester G. Adams
J. E. Adams, Jr.
John W. Adams, Jr.
William P. Aiken
Edgar D. Akin
J. T. Albritton
†Irl T. Alexander, Jr.
Hilda N. Alisago
Billy Jason Allen
Charles H. Alper
*E. R. Anderson
Harry S. Anderson
Ira Lee Arnold
Joseph S. Atkinson
Stewart H. Auerbach
Joel Eugene Avery
A. Merton Baker, Jr.
Fred B. Ballard, Jr.
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W. A. Banks
Juancho C. Bautista
G. E. Beckmann, Jr.
William B. Berry
E. F. Besemann
Samuel S. Binder
W. R. Bishop
Catherine Boatwright
Lonnie Roy Boaz, Jr.
Walter E. Boehm
Harry Vanzandt Bork
J. O. Bowers, Jr.
Robert E. Bowers
John F. Boxell
James R. Boyce
William D. Brackett
Frank S. Brannen
John Brimi
Neil Charles Brown
R. L. Brown
Thomas F. Buchanan
E. F. Buchner, III
William F. Buchner
Arch H. Bullard
John Arthur Burke
Thomas L. Buttram
W. R. Buttram, Jr.
Winton P. Caine, Jr.
Gary B. Caldwell
Donald R. Campbell
E. R. Campbell, Jr.
Don Allen Cannon
Maurice A. Canon
Ramon L. Carroll, Jr.
Bennett W. Caughran
David A. Chadwick
James S. Cheatham
C. Robert Clark
R. B. Clark, III
C. R. Cleveland
Oscar H. Clements
R. C. Coddington
J. R. Collins
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*John L. Cooley
J. H. Corey, Jr.
George Edwin Cox
M. Sue C. Cox
James Lynn Craig
Robert E. Lee Craig
Phil D. Craft
J. F. Crawley, Jr.
James H. Creel, Jr.
John M. Crowell
*Tolbert C. Crowell

Doyle E. Currey
*Joe Tom Currey
Thomas W. Currey
Thomas H. Curtis
B. E. Dahrling, II
James Wilson Davis
Jimmy B. Davis
Larry W. Davis
Robert G. Demos
P. L. DeRuiter
Joseph James Dodds
R. B. Donaldson
W. C. Dowell
James Robert Drake
Stanley J. Dressler
Philip J. Dugan
Daniel Dupourque
John Q. Durfey
P. M. DuVoisin
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W. C. Dyer, Jr.
Frank R. Eldridge
John C. Ellis
Bruce A. Elrod
Henry Clay Evans, Jr.
John Thomas Evans
R. E. Eyssen
James R. Fancher
Theodore A. Feintuch
Francis M. Fesmire
William B. Findley
R. V. Fletcher
J. M. Foley
Augustus C. Ford
N. G. Forlidas
W. R. Fowler
Guy M. Francis
A. H. Frye, Jr.
D. G. Garrett, Jr.
Orville Carlos Gass
George Clive Gibson
Robert H. Giles, Jr.
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*Dean W. Golley
James K. Goodlad
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William R. Green
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M. W. Greifinger
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B. F. Grotts
T. A. Grubbs, Jr.
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John C. Hampton
B. D. Harnsberger
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Carl A. Hartung
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Charles W. Hawkins
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Cauley W. Hayes, Jr.
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Thomas E. Hayes
James Martin Hays
Robert D. Hays
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Warren B. Henry
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J. M. Higginbotham
J. M. Higginbotham
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P. B. Holliday, Jr.
Moon Wha Hong
Charles M. Hooper
R. A. Hoppe
Donald Ross Hornsby
John O. House
Peggy J. Howard
Noel C. Hunt
W. P. Hutcherson
*D. Isbell
Dewitt B. James
Oliver W. Jenkins
E. G. Johnson

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J. W. Johnson, Jr.
Gerald Isom Jones
Harry E. Jones
David Bernard Karr
Yutaka Kato
C. D. Kennedy
J. J. Killeffer
C. W. Kimsey
Warren H. Kimsey
Clyde Roy Kirk
Durwood L. Kirk
G. H. Kistler
D. K. Kitchen
Michael Kosanovich
Ethem Y. Kuzucu
D. P. Labrador, Jr.
F. D. Lansford, Jr.
Richard S. Lasky
L. H. Lassiter
J. V. Lavecchia, Jr.
H. M. Lawrence, Jr.
Stewart Lawwill, Jr.
Jay F. Lewis, II
E. C. Lineberger
P. H. Livingston
Ira Morris Long
Robert E. Mabe
W. B. MacGuire, Jr.
D. V. MacNaughton
Luis G. Maldonado
Tim Joseph Manson
C. B. Marsh
*Frederick E. Marsh
*W. H. Marsh
Hossein Massoud
Cooper H. McCall
David P. McCallie
Augustus McCravey
Charles D. McDonald
Preston C. McDow
George R. McElroy
Ralph McGraw, Jr.
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Avelino V. Mercado
Robert T. Miller
George A. Mitchell
Ronald L. Molloy
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R. Smith Murray
R. W. Myers
Fujie Nakamura
Marvin M. Nathan
Merrill F. Nelson
Cecil E. Newell
E. T. Newell, Jr.
Robert L. Nichols
Paul V. Nolan
Barry Parker Norton
D. M. O'Neal
Robert N. Osmundsen
W. C. Pallas
Robert L. Patterson
Ernest White Patton
Levi R. Patton
William C. Patton
Stanley R. Payne
Martin Allen Perez
Millard Foy Perrin
W. A. Peterson, Jr.
Wesley Petty
W. E. Plaque
C. A. Portera
W. H. Price
M. C. Pruitt
Walter Puckett, III
Jesse O. Quillian
Joe Anne Quillian
James G. Quinn
Maurice S. Rawlings
Charles Jackson Ray
E. E. Reisman, Jr.
J. E. Reynolds
J. R. Reynolds
Alexander Rhoton
C. E. Richardson
Deloris E. Rissling
G. M. Roberts, Jr.
A. P. Rogers
William E. Rowe

Esperanza A. Rowell
James R. Royal
Don Jere Russell
Benjamin G. Santos
H. A. Schwartz
Edgar L. Scott, Jr.
Molly E. R. Seal
Charles F. Seman
Clarence Shaw
George W. Shelton
Leroy Sherrill
*W. J. Sheridan
Edwin H. Shuck, Jr.
George Lete Sivils
F. J. Smiley
M. J. Smith, Jr.
S. P. Smith
Pete S. Soteres
R. T. Spalding
James H. Spaulding
Eleanor Stafford
R. F. Stappenbeck
Harold Jones Starr
W. H. Steele, Jr.
W. A. Stem
Joseph H. Stickley
Harry Alfred Stone
W. H. Stoneburner
J. E. Strickland, Jr.
William K. Striker
Mary E. Stroud
C. L. Suggs, Jr.
Robert O. Summer
Nat H. Swann, Jr.
Charles Ray Swift
Myron J. Szczukowski
George N. Taylor
Thomas E. Taylor
Bernard Tepper
David J. Tepper
Jack Tepper
M. O. Tepper
Leonides Y. Teves
Lloyd W. Thompson
Paul C. Thompson
Robert C. Thompson
James E. Tinnell
D. H. Turner
A. Steven Ulin
Louis Ulin
F. C. Vallejo
M. R. Vance
*W. E. VanOrder
Roger Gordon Vieth
Gus John Vlasis
C. H. Von Cannon
M. Von Wersowetz
Harry Lee Walton
W. Weathers, Jr.
M. W. Westermeyer
L. Spires Whitaker, Jr.
J. L. Williams, Jr.
W. B. Willingham, Jr.
Dexter L. Woods, Jr.
Jackson Joe Yium
Julian Macow Yood
George G. Young
M. M. Young
Joseph I. Zuckerman

Cleveland

G. K. McAllister

Collegedale

Robert L. Jensen
C. M. von Henner

Copperhill

*Herschel H. Hyatt
J. T. Layne

Dayton

Ernest A. Forsten
L. F. Littell, Jr.
James Jacob Rodgers

Dunlap

C. G. Graves, Jr.
Arthur M. Owens

Franklin

*Martin A. Meacham

Hixson

R. W. Boatwright
Thomas R. Cox
R. F. Dominguez
Zolia G. Dominguez
Olga D. Medina
Millard W. Ramsey

Jasper

James G. McMillan

Lookout Mountain

James L. Caldwell
Rudolph M. Landry
Thomas Sparrow Long

Ooltewah

*C. L. Lassiter

Pikeville

Thomas G. Cranwell
Rufus S. Morgan

Rossville, Georgia

W. D. Crawley, Jr.

Signal Mountain

George M. Cannon
O. M. Derryberry
B. B. Holt, Jr.
*M. F. Langston
Allen D. Lewis
H. G. Sibold
A. Y. Smith, III
Philipp Sottong

South Pittsburg

Paul M. Burd
Marvin E. Deck
J. B. Hackworth, Jr.
J. B. Havron
William L. Headrick
Hiram Beene Moore
E. M. Ryan
Viston Taylor, Jr.

Whitwell

*Cleop Chastain
W. G. Shull

Bridgeport, Ala.

H. L. Elmore

Decatur, Ga.

Oscar D. Medina

Ft. Oglethorpe, Ga.

A. S. Alisago, Jr.

COCKE COUNTY MEDICAL SOCIETY

Newport

Reece B. DeBerry
A. J. Garbarino
D. H. McConnell
Drew A. Mims
Glenn Shults
F. M. Valentine, Jr.

White Pine

E. R. Baker

COFFEE COUNTY MEDICAL SOCIETY

Manchester

C. H. Farrar
Howard Farrar
Coulter S. Young

Tallahoma

Ralph Brickell
Marvin C. Fraley
Bruce E. Galbraith
Edwin E. Gray
C. B. Harvey
Jerry L. Kennedy
Ho Kyun Kim
James M. King
Seung Hoo Lee
Charles W. Marsh
Earl E. Roles
Claude C. Snoddy
Charles H. Webb
M. Clark Woodfin, Jr.

Nashville

John A. Shields

CONSOLIDATED MEDICAL ASSEMBLY

Alamo

J. H. Donnell

Bells

Charles Hickman
Russell W. Mayfield

Bemis

A. N. Williams, Jr.

Bolivar

Harvey H. Barham
Douglas L. Brint
C. L. Durham
Charles L. Frost
Raymond W. Rhear
William R. Sullivan
*James K. Tate, Jr.

Brownsville

*Thomas C. Chapman
Bobby D. Hale
David E. Stewart
J. C. Thornton, Jr.
J. K. Welch, Jr.

Bruceton

*Robert T. Keeton

Camden

Alvin T. Hicks
Robert L. Horton

Friendship

Lamar A. White

Grand Junction

N. H. Edwards

Henderson

Darrell King
Oscar M. McCallum
R. L. Wilson

Humboldt

Billy L. Couch
J. H. Crenshaw
T. M. Crenshaw
Albert H. Fick
Nelson C. Harrison
George E. Spangler

Huntingdon

Jerry F. Atkins
N. B. Bhat
Herbert G. Giddens
Robert B. Wilson

Jackson

C. V. Alexander, Jr.
Roy Appleton
Thomas K. Ballard
James Barker
Robert J. Barnett
*G. H. Berryhill
S. L. Bicknell
Jack H. Booth
William F. Burnett
Swan Burruss, Jr.
*Swan Burruss, Sr.
J. H. Chandler
Charles W. Cox
James T. Craig, Jr.
Edward F. Crocker
William G. Crook
John P. Curlin
Ruth E. Dinkins
George D. Dodson
Jack E. Douglass
R. A. Douglass, Jr.
Clarence Driver
E. W. Edwards
Blanche S. Emerson
Blair D. Erb
*William T. Fitts
James R. French
Fred Friedman
Oliver H. Graves
Robert C. Hall
Walton W. Harrison
George Harvey
G. E. Hazelhurst, Jr.
Charles B. Herron
Bobby Higgs
Robert S. Hill
Ben F. House
G. B. Hubbard
Leland M. Johnston
Chester Jones
*G. Frank Jones
John A. Kendall

R. R. Kenner
Duval H. Koonce
Donald S. LaFont
James D. Lane
J. A. Langdon, Jr.
Donald R. Lewis
Fred Looper
Robert B. Mandle
William C. McAfee
Harold T. McIver
A. L. Middleton
Jesse Miller, Jr.
Henry N. Moore
Alfred J. Mueller
Lamb B. Myhr
Roy M. Neudecker
George Pakis, Jr.
L. G. Pascal, Jr.
James A. Phillips
J. A. Price, Jr.
John C. Riddler
Russell H. Robbins
W. H. Roberts
Barnett Scott
Lee C. Sheppard, Jr.
Harris L. Smith
Robert J. Smith
Charles Stauffer
James L. Thomas
J. R. Thompson, Jr.
S. A. Truex, Jr.
R. T. Tucker, Jr.
Jimmy F. Webb
F. E. Williamson, Jr.
Wayne H. Wolfe
George Wyatt
Paul E. Wylie
Harold R. Yarbrow

Kenton

A. H. Gray

Lexington

Wesley F. Jones
Maurice N. Lowry
Warren C. Ramer
Warren Ramer, Jr.
Jack C. Stripling
Charles W. White

McKenzie

James T. Holmes
James H. Robertson
S. S. Walker, Jr.

Medina

*Robert H. Morris

Milan

Hubert P. Clemmer
James O. Fields
*P. D. Jones
Delza Penaranda
James H. Williams
Phillip G. Williams

Saltillo

Howard W. Thomas

Savannah

H. D. Blankenship, Jr.
A. G. Churchwell
John D. Lay
Thomas V. Roe
Howard Whitaker, Jr.
Thomas R. Williams

Selmer

T. N. Humphrey
Harry Peeler
James H. Smith
Monte E. Smith, Jr.

Somerville

John L. Armstrong
John M. Bishop
Frank S. McKnight
*John W. Morris
L. H. Plemmons
Karl Byington Rhea
Lee Rush, Jr.

Trenton

J. F. Bradley, Jr.
E. C. Crafton, Jr.
William G. DeSouza
John Wesley Ellis
James W. Hall
C. L. Holmes
Leon Koen
J. L. Williams

Whiteville

Aubrey Richards

CUMBERLAND COUNTY MEDICAL SOCIETY

Crossville

Richard L. Bilbrey
Richard C. Braun
Joe E. Burton
James T. Callis
J. T. Campbell, Jr.
R. E. Cravens
P. M. Deatherage
Carl T. Duer
Paul A. Ervin, Jr.
William E. Evans
R. Donathan Ivey
Joel F. Johnson, Jr.
H. F. Lawson
Fred W. Munson
*Stuart P. Seaton
Ramon S. Vinas
Joe K. Wallace
R. H. Wood, Jr.

Jamestown

Shelby O. Turner

Monterey

Jerome Sag

Pleasant Hill

*Laurence A. Chrouch
*Margaret K. Stewart

Rockwood

J. W. Lindsay

DAVIDSON COUNTY MEDICAL SOCIETY

Ashland City

James Baldwin

Brentwood

W. F. Sheridan, Jr.

Franklin

Joe T. Whitfield

Goodlettsville

James S. Hastie
Lee F. Kramer
G. S. McClellan
Wm. O. T. Smith

Hendersonville

Owen C. Bell
Andrew S. Boskind
Helen C. Burks
Charles M. Cowden
W. Gordon Doss
Cyrus E. Kendall
D. C. Ludington, Jr.
Daniel Mendoza
Robert D. Pilkinton
C. G. Stockard, Jr.
R. L. Strom

Hermitage

*John M. Lee

Jackson

Allen L. Schlamp

Madison

Joe Gary Allison
Zillur Athar
John B. Bassel
Charles B. Beck
L. Dale Beck
W. J. Binkley
James E. Burnes
Robert E. Burr
William J. Card
Sam W. Carney, Jr.
S. G. Chikkannaiah
Kenneth L. Classen
Frederic B. Cothren
James J. Couperus
William G. Davis
Hillis F. Evans
William F. Fleet, Jr.
John R. Furman
*Julian Gant
Harold L. Gentry
George B. Hagan
Robert L. Haley, Jr.
James M. High
Warren T. Hill
William H. Hill
LaDon W. Homer
Jerry Hunt
Dale Maurice Isaef
Elwin C. Lanz

Robert J. Linn
H. T. McCall
Barton McSwain
W. H. Marshall
J. O. Miller, Jr.
P. G. Pascua
Conchita T. Pecache
J. C. Pennington, Jr.
R. L. Pettus, Jr.
Divina Tan Po
Fred W. Ryden
Joseph W. Scobey
Sylvia R. Seamands
Norman L. Sims
Choon Duck Son
V. W. Stuyvesant
Joe Sutherland
Richard P. Taber
Harry Witztum

Memphis

*Harold M. Truebger

Mt. Juliet

E. D. Magpantay
A. Z. Manalac, Sr.

Nashville

Eduardo Abisellan
Georgina Abisellan
Harry S. Abram
David Acker
Maurice M. Acree, Jr.
Crawford Adams
Robert W. Adams, Jr.
R. B. Addlestone
Benton Adkins
I. A. Alcantara
Clyde W. Alexander
*Joseph W. Alford, Jr.
William C. Alford
David T. Allen
J. H. Allen, Jr.
Terry R. Allen
Clyde Alley, Jr.
*William E. Allison
Ben J. Alper
John R. Amberg
Arthur R. Anderson
*E. E. Anderson
Edward E. Anderson
Edwin B. Anderson
H. R. Anderson
J. E. Anderson, Jr.
J. S. Anderson, Jr.
Robert S. Anderson
William C. Anderson
George W. Andrews
Larry T. Arnold
Harvey Asher
Gerald F. Atwood
Daniel Baccus
Elizabeth Backus
Harry Baer
*J. Mansfield Bailey
Roderick I. Bahner
Thurman Dee Baker
*Sidney W. Ballard
Preston Hite Bandy
*Edward H. Barksdale
Paul Harold Barnett
Robert B. Barnett
David Barton
Allan D. Bass
Jack M. Batson
Randolph Batson
Mahin Bayatpour
D. Scott Bayer
C. Patrick Beatty
Luther A. Beazley
Eric Bell, Jr.
Robert L. Bell
H. W. Bender, Jr.
Lynch D. Bennett
George N. Benson
Edmund W. Benz
Louis J. Bernard
Stanley Bernard
Geoffrey Berry
John H. Beveridge
N. K. Bhagavan
Otto Billig
F. T. Billings, Jr.
George T. Binkley
Ben J. Birdwell
R. T. Birmingham
E. L. Bishop, Jr.
Lindsay K. Bishop
Joseph M. Bistowish
Joseph N. Blunk
Frank H. Boehm
Robert L. Bomar, Jr.
Arthur G. Bond
John Benjamin Bond

Robert C. Bone
G. W. Bounds, Jr.
David G. Bowers, Jr.
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John M. Boylin
H. B. Brackin, Jr.
Cloyce F. Bradley
David V. Bradley
*G. Hearn Bradley
James M. Brakefield
H. Victor Braren
T. E. Brittingham
Arthur L. Brooks
Lloyd R. Broomes
John C. Brothers
Dorothy Brown
Helena P. Brown
James H. Brown
Kermit R. Brown
W. E. Brown, Jr.
E. W. Browne, Jr.
Harry Gray Browne
*Clinton E. Brush
J. Thomas Bryan
R. D. Buchanan
R. N. Buchanan, Jr.
Reuben A. Bueno
*John C. Burch
Joseph G. Burd
Henry Burko
Gerald R. Burns
George R. Burrus
Roger B. Burrus
Leroy M. Burton, Jr.
B. F. Byrd, Jr.
B. H. Caldwell
James J. Callaway
Calvin L. Calhoun
W. Barton Campbell
C. G. Cannon, Jr.
Richard O. Cannon
E. Tom Carney
G. K. Carpenter, Jr.
*G. K. Carpenter, Sr.
Charles M. Carr
M. Gary Carter
Oscar W. Carter
Robert A. Carter
Anthony D. Casparis
Norman M. Cassell
*John S. Cayce
Lee F. Cayce
Ralph J. Cazort
Robert L. Chalfant
Pong Moon Chang
John E. Chapman
Eric M. Chazen
William J. Cheatham
Abraham Pacha Cheij
*Amos Christie
Arkorn Chulamorkodi
William M. Clark
Jeannine A. Classen
Cully A. Cobb
Robert T. Cochran
William M. Cocke
John H. Coles, III
John Connolly
William A. Cook
George Edward Cooke
William E. Coopwood
Henry P. Coppolillo
Charles Corbin, Jr.
Robert T. Corney
Orrie A. Couch, Jr.
Frederic E. Cowden
George Boyd Crafton
Paul S. Crane
H. James Crecraft
William B. Crenshaw
Angus M. G. Crook
Jerrall P. Crook
*R. R. Crowe
E. Perry Crump
W. Andrew Dale
Rollin A. Daniel, Jr.
William J. Darby
Philip V. Daugherty
George William Davis
Michael David Davis
*Theodore W. Davis
Thomas J. Davis, Jr.
Thos. C. Delvaux, Jr.
H. C. Dennison, Jr.
David M. Denny
Samuel H. Dillard
Walter L. Diveley
William M. Doak
William D. Donald
P. R. Dornenburg
*Earl D. Dorris
*Robert T. Doster, Jr.
*Beverly Douglas
*Henry L. Douglass

- William L. Downey
Mark A. Doyne
L. Rowe Driver
Ray L. Dubuisson
Price H. Duff
George E. Duncan
G. Dewey Dunn
William P. Dutton
Joe M. Edwards
Robert H. Edwards
William H. Edwards
Lloyd C. Elam
Paul D. Elcan
James H. Elliott
*P. C. Elliott
James W. Ellis
Melvin L. Elson
Charles W. Emerson
Yilmaz Eryasa
Irwin B. Eskind
T. Horace Estes
E. William Ewers
Don L. Eyler
Roy C. Ezell
A. K. M. Fakhruddin
Leslie Falk
William T. Farrar
R. James Farrer
J. L. Farringer, Jr.
William B. Farris
W. H. Faulk, Jr.
Gerald M. Fenichel
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Ray O. Fessey
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Laura M. Fisher
R. Darryl Fisher
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Ross Fleming, Jr.
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Garth E. Fort
Henry W. Foster
John H. Foster
Nelson R. Foster
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D. L. Foxworthy
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Frank R. Freeman
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*James C. Gardner
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- James P. Wilson
John Aaron Wilson
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Nat T. Winston
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Ross S. Wright
Samuel S. Wright
John Lanier Wyatt
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Mario K. Yu
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*Thomas B. Zerfoss
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- Chicago, Ill.*
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- San Francisco, Ca.*
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- Dickson*
Stanley M. Anderson
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Shannon R. Curtis
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Phillip W. Hayes
James T. Jackson
William M. Jackson
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William W. Taylor, Jr.
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- Erin*
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- FENTRESS COUNTY MEDICAL SOCIETY**
- Jamestown*
B. Fred Allred
Patrick B. Craven
Guy C. Pinckley
Jack Smith
- FRANKLIN COUNTY MEDICAL SOCIETY**
- Decherd*
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- Sewanee*
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Dudley C. Fort
Charles B. Keppler
Fletcher S. Stuart
Roger Way
- Winchester*
Jo C. Anderton
Reynolds Fite
Gerald E. Johnson
Rodolfo Villar

**GILES COUNTY
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Buford P. Davis
James V. Fentress
A. C. Foronda
*Walter J. Johnson
William H. Murrey
William K. Owen

**GREENE COUNTY
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*L. E. Coolidge

Greeneville

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Robert G. Brown
Robert A. Cooper
Robert S. Cowles, Jr.
Luke L. Ellenburg
Haskell W. Fox
Rae B. Gibson
Hal H. Henard
Gordon P. Hoppe
N. P. Horner
C. D. Huffman
Ben J. Keebler
Richard C. Larsen
W. L. Mason
Haskell B. McCollum
James R. McKinney
Dee L. Metcalf
Michael J. O'Dell
George W. Oden
David O. Patterson
Calvin R. Reviere
John L. Shaw
Kenneth Susong
W. C. Thacker

Mosheim

Dale Brown
Graydon Evans

Tusculum

W. D. Diamond

Clearwater, Fla.

A. K. Husband

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Mary Chin
John W. Ellis, Jr.
Samuel C. Fain
Jessie E. Howard
Frank L. Milligan
Estle P. Muncy

Johnson City

James C. Mahoney

Morristown

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K. M. Allum
L. R. Barclay
Mack J. Bellaire
C. C. Blake
H. T. Brock
A. P. Bukeyvich
M. E. Bukovitz
J. D. Caldwell
Kemp Davis
Donald Ray Dees
Clarence J. Duby, Jr.
R. A. Finney
P. L. Fuson
David L. Greene, Jr.
Robert Gronewald
W. J. Gutch
Crampton H. Helms
T. R. Johnston
John H. Kinser
O. R. Lowry, III
Everette G. Lynch
Robert L. Mueller
O. C. Renner, Jr.
Josiah B. Sams
Charles S. Scott
Donald C. Thompson
Powell M. Trusler

Jose Wee-Eng
D. V. Willbanks
C. D. Wohlwend

Rutledge

*Leander C. Bryan
Tenny J. Hill

Whitepine

Erman Dale Allen
B. J. Millard

**HAWKINS COUNTY
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*John M. Pearson

Rogersville

R. B. Baird, Jr.
Ralph Gambrel
William E. Gibbons
Walter L. Goforth
E. M. Henderson

Surgoinsville

Marvin R. Beard
Wm. R. Kenny

**HENRY COUNTY
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*J. B. Peebles

Paris

Robert D. Adams
W. R. Campbell
*A. C. Dunlap
W. P. Griffey, Jr.
I. W. Howell
I. H. Jones
Larry Long
Barry P. McIntosh
T. McSwain Minor
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J. D. Mobley
J. E. Neumann, Sr.
D. M. Norman
William Rhea, Sr.
William G. Rhea, Jr.
Kenneth G. Ross
John M. Senter, Jr.
Frank B. Sleadd
J. Ray Smith
T. C. Wood

**JACKSON COUNTY
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Elijah M. Dudley
Jack S. Johnson

**KNOX COUNTY
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Malcolm F. Cobb
R. H. Duncan, Jr.
Fred M. Furr
Carl E. Gibson
B. D. Goodge
Donald E. Larmee
Cynthia McMillan
Robert W. Meadows

Corryton

A. D. Simmons

Fountain City

F. H. Payne

Greeneville

*R. H. Monger

Knoxville

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Joseph E. Acker, Jr.
Tea Edward Acuff
William J. Acuff
John C. Adler
Robert L. Akin
Edmund B. Andrews
*Chas. M. Armstrong
Charles G. Ange
John W. Avera
Anne B. Avery
Robert B. Avery

Shirley B. Avery
William R. Bailey
Martin R. Baker
Gordon S. Ballou
Floyd N. Bankston
G. William Bates
Walter C. Beahm
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Alfred D. Beasley
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Spencer York Bell
Bruce Bellomy
Walter Benedict
James C. Benton
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Monte B. Biggs
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Joe W. Black, Jr.
H. A. Blake
Lynn F. Blake
Leon Bogartz
W. E. Bost

Wade H. Boswell
Leonard A. Brabson
Jacob T. Bradsher
Richard F. Brailey
Aubra D. Branson
Robert G. Brashear
Robert J. Brimi
Joseph L. Broady
*Clayton M. Brodine
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Fred F. Brown
*Horace E. Brown
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Martha S. Bushore
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Clyde L. Capps
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C. Sanford Carlson
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Amoz Chernoff
Jack Chesney
John T. Chesney
L. Warren Chesney
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K. W. Christenberry
K. W. Christenberry, Jr.
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H. L. Neuenschwander
*Park Niceley
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Richard A. Obenour
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Homer C. Ogle
Bergein F. Overholt
B. M. Overholt
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E. C. Segerson
*Milton B. Seligstein
*R. E. Semmes
Ray O. Sexton
Norman D. Shapiro
John L. Shaw
John J. Shea, Jr.
M. C. Shea, Jr.
Wm. E. Sheffield
James R. Shelton
F. H. Shipkey, Jr.
John A. Shively

Leslie B. Shumake
J. S. Siegel
Saul Siegel
Robert L. Siegle
M. N. Silverman
James C. H. Simmons
*W. Likely Simpson
Thomas D. Sisk
Paul R. Sissman
Marvin R. Skaggs
Boyce M. Skinner
*Edward F. Skinner
H. T. Slawson, Jr.
Avron Abe Slutsky
Alvin E. Smith
C. Gaylon Smith
Hugh Smith
Vernon I. Smith, Jr.
William C. Smith
Frank W. Smythe, Jr.
Charles V. Snider
Dowen E. Snyder
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J. J. Sohm
A. N. Sollee, Jr.
C. Sotelo-Avila
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Wm. O. Speight, Jr.
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*D. H. Sprunt
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James F. Stanford
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Ray G. Stark
W. P. Stepp
Thomas N. Stern
Cleo W. Stevenson
E. N. Stevenson
Robin M. Stevenson
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Marcus J. Stewart
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G. H. Stollerman
*S. Fred Strain, Sr.
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A. N. Streeter
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R. L. Summitt
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*O. W. Swamer
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Hall S. Tacket
B. S. Talley
M. H. Tanenbaum
Dean G. Taylor
*Norman Taube
Herbert A. Taylor
Robert C. Taylor
*Morton J. Tendler
Paul F. Teague
Ronald L. Terhune
Michael C. Thomas
Paul A. Thompson
William C. Threlkeld
Samuel M. Tickle
Don R. Tielens
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Edmund Utkov
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C. F. Varner
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Leonard J. Vernon
Sidney D. Vick
Leonard B. Victor
John Robert Vincent
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*Samuel L. Wadley
Frances C. Walker
James W. Walker
*Lillie C. Walker
Parks W. Walker, Jr.
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*W. W. Walker
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James A. Wallace
Peter B. Wallace
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T. L. Waring
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O. S. Warr, III
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J. J. Weems
Thomas D. Weems
Alva B. Weir, Jr.
Van H. Wells
Samuel Wener
J. M. Wesberry
Harold Maxell West
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James H. White, Jr.
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Gene L. Whittington
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I. D. Wiener
W. Wiggins Wilder
Joe L. Wilhite
E. B. Wilkinson, Jr.
H. Glenn Williams
Linkwood Williams
Paul H. Williams
Van R. Williams
*W. L. Williamson
Gordon L. Wills
John Ross Wills
R. S. Wilroy, Jr.
Harry W. Wilson
Harwell Wilson
J. E. Wilson
J. E. Wilson, Jr.
John M. Wilson
Winfred L. Wiser
J. B. Witherington
Rodney Y. Wolf
Matthew W. Wood
Thomas O. Wood
J. C. Woodall, Jr.
G. R. Woodbury
Linda P. Woodbury
Clifton W. Woolley
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Jerry Lewis Worrell
Earle L. Wrenn, Jr.
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L. D. Wruble
Henry Wurzburg
C. F. Yates
J. G. Young
John D. Young, Jr.
Paulus Zee
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Millington

*James F. Bradley
F. H. Goode
W. R. Kendrick, Jr.
Billy W. King
C. G. Landsee

Southaven, Miss.
Jack C. Biggs

Winter Park, Fla.
Steve H. Turnbull

MONROE COUNTY MEDICAL SOCIETY

Madisonville

Frank H. Lowry
H. M. McGuire

Sweetwater

James L. Allen
James H. Barnes
*W. J. Cameron
Joe H. Henshaw
Telford A. Lowry
J. E. Young

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Clarksville

E. R. Atkinson
James F. Bellenger
A. R. Boyd
Carlos Brewer
W. H. Brigrance
Ed Cutter
Sam N. Doane, Jr.
D. W. Durrett, Jr.
J. T. Farrar
*Mack Green
V. H. Griffin
David L. Gullett
B. T. Hall
James Hampton
Thomas K. Hepler
B. T. Inglehart
Howard R. Kennedy
Robert C. Koehn, Jr.
J. H. Ledbetter, Jr.
Fritz F. Lemoine
J. W. Limbaugh, Jr.
R. S. Lowe, Jr.
O. S. Luton
William G. Lyle
F. J. Malone, Jr.
F. G. McCampbell
J. R. Milam
T. J. Montgomery
Don Richardson
Jack W. Ross, Jr.
James R. Smith
Marion Spurgeon
W. P. Titus, III
Harold Vann
Roy Vermillion
W. H. Wall, Jr.
Frank Wilson
Paul Wilson
John F. Wright, Jr.
R. W. Young, Jr.

Dover

Robert Henry Lee

Erin

Douglas W. Ligon
Albert Mitchum

Selmer

Ross Smith

Trenton, Ky.

Jesse C. Woodall

NORTHWEST TENNESSEE ACADEMY OF MEDICINE

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Paul W. Wilson

Dyersburg

Jesse Paul Baird
Thomas V. Banks
James W. Bonds
J. D. Connell
William F. Craddock
Walter E. David
Robert L. Harrington
Douglas Haynes
John D. Hunter, Jr.
A. Peter Inclan
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Orren B. Landrum
Jas. Chalmers Moore
Olyn Fred Moore, Jr.
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John A. Reaves, Jr.
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W. I. Thornton, Jr.
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R. M. Jeter

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Hobart H. Beale
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Robert G. Patrick
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O. K. Smith, Jr.
Enos C. Thurmond
Jose A. Veciana
T. Thomas Warren

Memphis

*Ken Chandler
Daniel P. Green
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Newbern

W. O. Murray
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Ridgely

William B. Acres

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Arden J. Butler, Jr.
John C. Jennings
B. G. Robbins
William H. Tucker
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Tiptonville

Jack R. Holifield
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V. Art Murphy

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Union City

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Wm. Neel Carpenter
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Byron O. Garner
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Laurence W. Jones
E. P. Kingsbury, Jr.
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Malcolm T. Tipton
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OVERTON COUNTY MEDICAL SOCIETY

Byrdstown

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Celina

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Livingston

Malcolm E. Clark
Herman B. Nevans
Denton D. Norris
Will G. Quarles, Jr.
Jack M. Roe
Jerry L. Shipley

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Algood

J. T. Moore

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Phillip D. Bertram
James L. Breyer
Jack L. Clark
William N. Cook
John D. Crabtree
K. G. Crawford
S. U. Crawford, Jr.
James T. DeBerry
Walter Derryberry
Stanley W. Erwin
William C. Francis
William A. Hensley
W. M. Humphrey
C. L. Jones, Jr.
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*Thurman Shipley
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Henry Hedden
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R. S. Hellman, Jr.
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Kingston

Carolyn A. Beard
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Samuel G. McNeeley

Oak Ridge

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Richard G. Brantley
Geron Brown
Marvin G. Caldwell
Charles L. Campbell
Alex G. Carabia
John P. Crews
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Dexter Davis
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C. Lowell Edwards
Earl Eversole, Jr.
T. Guy Fortney
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Donald Hartman
Ernest Hendrix
James I. Hilton
H. J. Hostetler
Raymond A. Johnson
Elliott E. Kaebnick

Avery P. King
*Ralph Kniseley
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Lynn Lockett
C. C. Lushbaugh
Joseph S. Lyon
Sam O. Massey
V. W. McLaughlin
M. W. Morris
Bill Nelson
Charles P. Oderr
Etna M. Palmer
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H. M. Rossman
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David W. Seay
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L. L. Sheely
Paul E. Spray
David G. Stanley
George Stevens, III
C. R. Sullivan, Jr.
Marjorie J. Swint
Daniel M. Thomas
Joe E. Tittle
D. T. Upchurch
Joan Woods
Gino Zanolli

Oliver Springs

S. J. Van Hook

Rockwood

Isham M. Cox
C. Harwell Dabbs
Tom W. Evans
Thomas A. Fuller
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Summit, New Jersey

Jock L. Graeme

ROBERTSON COUNTY MEDICAL SOCIETY

Cedar Hill

Robert H. Elder

Cross Plains

Ora W. Ramsey

Springfield

Warren G. Hayes
Bevley D. Holt
John M. Jackson
Carroll M. Looney
James R. Quarles
William P. Stone
John B. Turner
Raymond H. Webster
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White House

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RUTHERFORD COUNTY MEDICAL SOCIETY

Murfreesboro

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J. H. Alexander
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*W. S. Barham
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Sam H. Hay
Chas. A. Heffington
George S. Hester
*R. D. Hollowell

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Robert P. Tuma
Tom A. Turner
Olin O. Williams
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Woodbury

William A. Bryant
Russell E. Myers
L. L. Reuhland
J. Van Blaricum
Herbert R. Wolf

Loveland, Colo.

R. B. Moore

SCOTT COUNTY MEDICAL SOCIETY

Corbin, Ky.

Thomas P. Buckley
William Daniels
Aubrey D. Wills

Oneida

Maxwell E. Huff
Horace Leeds
Roy McDonald
Milford Thompson

Robbins

George Kline

SEVIER COUNTY MEDICAL SOCIETY

Gatlinburg

Terrell B. Tanner
Charles E. Waldroup

Pigeon Forge

Hilda Jane Walters

Sevierville

*Robert A. Broady
Catherine Gilreath
John M. Hickey, Jr.
John C. Jacobs
M. B. McKinney
Charles L. Roach
John L. Sonner, II
*Robert F. Thomas
*Otha H. Yarberry

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Carthage

Hugh E. Green
David G. Petty
John M. Roe
Frank T. Rutherford

Celina

Ray A. Olachea
Nora B. Tiongson
R. V. Tiongson

Hartsville

Edgar K. Bratton

Nashville

*W. Carter Williams

Smithville

Melvin L. Blevins
Hugh Don Cripps
John K. Twilla

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Blountville

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Bristol

*Harry W. Bachman
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Frank S. Blanton, Jr.
Herbert H. Bockian
*Thaddeus R. Bowers
William J. Boyd
Billy Booth Brinkley
F. T. Buchanan
R. S. Buddington
J. E. Butterworth
Claude M. Calcote
Ronald D. Caldwell
H. Austin Carr
Wilfred C. Carreras
Nathaniel J. Chew
Bennett Y. Cowan
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W. S. Credle
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James A. Gwinn
Everette L. Haas
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Basil T. Harter
King A. Jamison
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Robert A. Repass
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William F. Schmidt
Frank S. Sikora
F. D. Slaughter
*Philip D. Stout
Hal S. Stubbs
Frank W. Sutterlin
Robert C. Taylor
Thomas C. Todd
Jane Toothman
*Allen K. Turner
E. A. Turpin, Jr.
*Douglas D. Vance
F. V. Vance, Jr.
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Robert L. Vann
Sidney S. Whitaker
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Homer P. Williams
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Church Hill

Warner L. Clark
T. H. Roberson, Jr.

Kingsport

Myron J. Adams
Paul M. Allen
Edmond L. Alley
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Donald W. Bales
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James H. Boles
Bert L. Booker, Jr.
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D. G. Burmeister
Keith H. Byrd
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Ricardo D. Sambat
*Walter E. Scribner
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James E. Shull
Joseph F. Smiddy
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Warren Y. Smith
A. Isaac Sobel
Robert T. Strang
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James S. Vermillion
Peter Wadewitz
Louis A. Walker
Paul F. White
H. Jackson Whitt
J. Dwight Whitt
*William A. Wiley
J. E. Williams
Robert Williams

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Paul J. Bundy
Robert O. Glenn

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Clarence R. Sanders
Wm. David Stewart
W. H. Stephenson
James R. Troutt
J. B. Wallace
R. C. Webster

Hartsville
Ira Neeley Kelley

Portland
Albert G. Dittes
James T. Ladd
Lu Ponce
R. W. Simonton, Jr.

Westmoreland
Thomas F. Carter

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Travis L. Bolton
Norman L. Hyatt
B. S. McCullough
James S. Ruffin, Jr.
*H. Stirl Rule
J. D. Witherington
Munford
Hugh W. Vaughn
A. S. Witherington, Jr.

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Joseph F. Fisher
John C. Gaw
James L. Moore
Barun A. Mukherji
T. L. Pedigo
James E. Philips
K. C. Richmond
Bethel C. Smoot
J. R. Troop
Spencer
Margaret Rhinehart

WASHINGTON-CARTER UNICOI COUNTY MEDICAL SOCIETY

Elizabethton
S. Martin Bronson
Richard Bucher
*Estill L. Caudill
Estill L. Caudill, Jr.
*W. G. Frost
R. Eugene Galloway
J. L. Gastineau
J. Gordon Gregory
Royce L. Holsey
Robert D. Jones, Jr.
Ricardo Martin, Jr.
Floyd E. May

W. Joyce May
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Edgar E. Perry
D. J. Slagle
Charles J. Wells
Erwin
Earl Baines
Robert H. Harvey
Nat E. Hyder, Jr.
Thomas B. Jones
Lawrence D. Mullins

Johnson City
Charles E. Allen
W. P. Bailey, Jr.
Gay K. Battle
J. Wayne Battle, Jr.
Willard H. Bennett
Oswald Berrios, Jr.
Boyce M. Berry
Clyde O. Brindley
George H. Brown
Duane C. Budd
G. J. Budd
H. W. Burnette
E. Malcolm Campbell
Richard Carver
Walter Chapman
Robert L. Clark
William J. Cone
Lewis F. Cosby
Alfred N. Costner
C. M. Creech
Douglas H. Crockett
Teodorico P. Cruz, Jr.
Horace B. Cupp
Robert G. Dennis
Jan DeWitt
B. E. Dossett, Jr.
B. H. Dunkelberger
Mackinnon Ellis
Thomas J. Ellis
Charles A. Fish
*Walter Fleischmann
Byron W. Frizzell
*Ira M. Gambill
Newton F. Garland
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L. E. Gordon, Jr.
C. E. Goulding, Jr.
Charles S. Gresham
James O. Hale
Ben D. Hall
Walter D. Hankins
Richard B. Heintz
Charles H. Hillman
Sam W. Huddleston

R. G. Hutchins
W. E. Kennedy
Martin Kerlan
John F. Lawson
Carroll H. Long
Alphonso Lopez
Thomas P. McKee
John B. McKinnon
Walter A. McLeod
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Ray W. Mettetal
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W. Rutledge Miller
Lawrence S. Moffatt
Calvin Morgan, Jr.
R. S. Morrison, Jr.
Cowan Moss, Jr.
Harry Myron, Jr.
Peter A. Oliva
Orland S. Olsen
C. O. Parker, Jr.
W. A. Phillips
John P. Platt
Thomas P. Potter, Jr.
Randolph P. Powell
James Jacob Range
G. A. Rannick
B. A. Richardson
K. L. Roark
Clarence L. Ruffin
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M. Sidky-Affi
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C. J. Vandiver, Jr.
S. E. Vermillion
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Phil V. Walters
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Clinton Steve Webb
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Norman E. White
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John M. Wilson
Charles P. Wofford
James F. Wood

Mountain Home
Lyman A. Fulton

E. M. Nielsen
Shelbourne D. Wilson
Palm Beach, Fla.
Joseph R. Bowman
Montezuma, N.C.
*Mel D. Smith

WHITE COUNTY MEDICAL SOCIETY

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Donald H. Bradley
Charles A. Mitchell
Charles B. Roberts
L. H. Smith, Jr.

WILLIAMSON COUNTY MEDICAL SOCIETY

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William F. Encke
Fulton M. Greer, Jr.
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Robert M. Hollister
Howell P. Hoover, Jr.
*R. H. Hutcheson, Sr.
Anthony J. Lee
Roberto S. Mauricio
William Walter Pyle
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Joseph L. Willoughby
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Joe F. Bryant
Morris D. Ferguson
Harvey H. Grime
Albert T. Hall
*O. Reed Hill
Roscoe C. Kash
James P. Leathers
Thomas C. Littlejohn
Sam B. McFarland
Thomas R. Puryear
*John H. Tilly
Robert P. Turner

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Eben Alexander, Knoxville
William F. Bell, Bolivar
Ralph R. Braund, Memphis
R. W. Breytspraak, Chattanooga
Joseph H. Brock, Memphis
Kinsey M. Buck, Memphis
Will Camp, Nashville
Everett M. Clayton, Nashville
Dennis Murl Cornett, Chattanooga
Clyde V. Crowell, Memphis
Alice R. Deutsch, Memphis
William C. Dixon, Nashville
James I. Elliott, Bolivar

Stephen Farr, Cookeville
John Marsh Frere, Chattanooga
A. W. Green, Memphis
Emmett R. Hall, Memphis
Ellis U. Harr, Bristol
John W. Harris, Columbia
George A. Hatcher, College Grove
William A. Howard, Cookeville
Byron N. Hullender, Chattanooga
Marion L. Jenkins, Corryton
Alvin E. Keller, Nashville
Henry Kirby-Smith, Sewanee
Robert P. Layman, Knoxville

Charles R. Mason, Memphis
Robert O. Mason, Alexandria
George McPherson, Memphis
J. C. Mobley, Memphis
Robert W. Newman, Knoxville
William T. Nunes, Nashville
John S. Olds, Halls
Max E. Painter, Lafayette
Carl Steven Patterson, Trenton
William B. Robinson, Newport
T. H. Rybachok, Signal Mountain
Omar E. Smith, Memphis

H. J. Sparling, Jr., Union City
W. G. Stephenson, Chattanooga
S. J. Sullivan, Cleveland
W. W. Taylor, Memphis
Dan Rees Thomas, Knoxville
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